An Inaugural Address
ON
MAN AND MEDICINE.

Delivered at the Opening of the Session of the York Medical Society on Oct. 13th, 1897,

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MR. PRESIDENT, LADIES, AND GENTLEMEN,—I understand that I am to address this afternoon more or less of a mixed audience, and I long ago made up my mind that if ever such an opportunity presented itself to me, although in doing so I should have to say again many things that at other times and in other places I have said before, I should address myself in the main to the lay element amongst my hearers. Some alleged remedy has conquered pain for fifty years men read as they walk the streets, and many a one believes it—or at least the principle it embodies, and this or that nostrum is bought in consequence, and thus advertisements pay. The man of medicine, on the other hand, turns aside and smiles at the advertiser on the one hand for his brazen impudence, and at the man in the street on the other because he is such a simpleton. It is evident, therefore, that the natural man and the regenerate, if so I may venture to designate the layman and the medical man, look at things from very different standpoints, and it is this difference that I propose in some fragmentary way to consider to-day.

Now when a man is sick he wants to get well. Why does he want to get well? Why ask such a question? you will say. For several reasons that are all too plain. He may have his business to carry on, which no one can do as well as he; there are the care and support of those who are dear to him; there is the discomfort of being out of health, &c. And yet I doubt, important as they are, if these are the most potent elements in the desire for health. For the moneyed man—even more than the bread-winner who *may* sometimes get temporarily tired of life when fagged by the burden and heat of the day—even the wealthy man, I repeat, is just as keen on getting well. Now some would say that this is due to the discomfort, too often distress or pain, of the sickness. Others might hold that the presence of sickness was the shadow of death. And I do not doubt that these things do enter in some measure into the result; but the wish to get well is, I believe, conditioned and inspired by a more active influence than these, and is nothing less than an intense unconscious necessity of living that is implanted in each living thing as it launches into being. I have often sat to enjoy the view on the side of a hill in the neighbourhood of one of the towns of the Riviera, where far down at the bottom of the valley is a small public abattoir, and I have repeatedly noticed that animals, both singly and in flocks, have wended their way to their doom in perfect peace of mind until the very gates of the charnel house were reached. Then suddenly the scene changed and all was commotion: the animals duck and tumble, run here and there, and do all they can to avoid an entrance into the fatal enclosure. Who can doubt that a sure intuition of danger has been stirred and that unreasoning reason points them clear? Who has not noticed how instinctively a horse will recognise the near proximity of a corpse of its own order, and how it will snort and plunge to get away from the noxious thing? It can hardly be supposed that the lower animals have any *experience*, and therefore fear, of death. They must scent or sight a something that—like the sight of a little blood to many a strong man—makes the heart faint. This living principle, this nervous current, this anima, this soul starts us on the road of life and keeps us going, and the first breath of the sense of its failure produces the foretaste of death. Ah, these foretastes of death! They come to some apparently, and very terrible they are. I remember once watching by the bedside of a strong man in the pride of life who had had a sudden hæmorrhage. So far as I could see there was every hope that the danger had passed; yet there remained a restlessness and an anxiety about the patient that I could not explain. But I knew in a few short hours that he had recognised in some unconscious way what I could not, that in his pulsatile existence some link had gone and had brought him the presentiment of dissolution. The silver cord was loosening and produced a sensation that rightly forecast the issue. This is a somewhat unusual case, but there is a larger number of instances where, I believe, a like sensation comes, and although these people never die they appear to suffer an appalling sense of impending annihilation. Many a woman—aye, and strong man also—has described, or attempted to, this indescribable feeling, a sudden, fearful collapse that seems almost to give them a look over the precipice into the next world, and then leaves them, laughing, as it were, at the poor, helpless, terror-stricken things, with every fibre trembling as from a fearful nightmare.

We are often inclined to smile at what, perhaps, we think the overdrawn picture that the subjects of this complaint portray—to say, or think rather, "Oh! a nervous man or woman," and to pay little attention to their plaints. But I suspect that the suffering that these people undergo is a very real one and that it merits our best attention and sympathy. Happily, the infliction does not come to many. I am never tired of saying, because I am sure it is as true as it is comforting, although in opposition to the general belief, that death has no terrors for the sick man. To the living and healthy man it is quite otherwise, but the sick man upon whom death lays his hand pales gently and imperceptibly out of life. The unwitting legacy of sorrow, sadness, and distress is left around and behind.

At the bottom of all such episodes as I have mentioned there may be, if you like so to express it, a terror of death; but if it be so it surely never comes to the individual in any concrete thought as such. There is rather some sudden shock that is born of interference with an intense well-spring of being; with—oh, well described—the breath of life—a condition that one can best conceive of perhaps by supposing that our driving power, of which I am going to speak again presently, suddenly gives a jolt, or momentarily fails, like the electric light does sometimes, and then goes on again, and of which we can conceive as a by no means pleasant experience. It is said of someone that upon remarking that he must live a companion responded that he did not see the necessity. But that a man must live is a great truth for the individual. Living is an imperious necessity of unconscious energy that we cannot away with, and it is this that seems to make of suicide so unnatural and morbid an impulse. I am no believer in *felo de se*. It may possibly seem to some that this is labouring a point that has not much in it. But it is not so. For if I say that every man is possessed of an intense love of life it will at once be said that there are frequent exceptions. Many a man says, no doubt, that he or she does not value life for its own sake, and there are those who regard a love of life for itself as a selfish or cowardly feeling. Therefore I think it is important to contend that, whatever the living principle may be, it is involuntary, irrepressible, and intense, that it compels to actions oftentimes against our wills, and it is this fundamental living momentum that plays a large part in inspiring the somewhat peculiar attitude in which man stands to medicine—an attitude that in many ways is still even at this the end of the nineteenth century oftentimes quite irrational. For instance, take first the diagnosis of disease—that is to say, the finding out what is the matter with a man. There are few indeed of the sick or of his relatives who will allow that there can be any doubt as to the meaning of the symptoms. That is to say, although when the medical man is in doubt they will admit it is impossible to tell at once what is the nature of the complaint that is setting in, they nevertheless act as if no doubt were allowable, and it speedily is made evident to the medical man that to doubt counts against the doubter for incompetence, and some other opinion is sought to settle the matter. But what are the facts? The boot is so much on the other leg that I would rather contend as the more nearly true that there are few cases if our thoughts were laid absolutely bare that are entirely free from all element of doubt. Every walk in life is paved with uncertainty. Is it likely that the problems of medicine afford easier solution? On the contrary, it is certain that, resulting as they too often do from conditions that we are quite unable to measure in any way, they are too often incapable of solution in any dogmatic way. Only

yesterday a young man came to me for an opinion. I found as he unfolded his tale that he had seen all the men of the best repute in London. The case presented two alternatives. About half had taken the one view and half the other. He had not paid me the compliment of taking my casting vote, but took me by the way to yet other opinions. I therefore put it to him what was the common-sense explanation of the difference of opinion that he had obtained. There could be only one, and it obviously was that the question he wanted solved was insolvable, and that all he had to do was to accept the situation. But I know he will not. I am afraid it is not in nature to sit down in doubt in the matter of one's health. But doubt must be. You see the symptoms of disease are pain and fever and alteration of the appearance and shape of parts, and so on. And pain, alas, is common to many diseases. Fever also is common, and the enlargement of an organ may arise from several different changes of structure, and still more numerous diseases according to the combinations that come of the re-arrangement of the several morbid changes. No wonder then that the diagnosis of disease is at times at fault. And it were better always to bear in mind that "knowledge brings doubts and exceptions and limitations that are all hindrances to vigorous statement." Yes, it is experience that raises doubts. I am sure that hardly a week passes by in which I am not asked to decide upon the nature of a doubtful case of fever—chiefly whether it be typhoid fever or not. And it is often, indeed, that I am unable to do so. Quite different diseases may have certain features in common, when it is impossible with our present knowledge always to distinguish one from the other. Such a group is formed by influenza, typhoid fever, septic endocarditis, and a form of what the public call "galloping consumption." One often has to wait in such cases until the negative has gradually developed. And because the public will not wait all sorts of things are lumped into the group of typhoid fever that are not of that nature at all.

Take another case. You go to a specialist to ascertain whether you have early phthisis or not, and because you will not take "I am not sure"—you must have a positive opinion—the investigator's judgment is biased, and over and over again a man has been said to have delicate lungs when there was nothing at all the matter with them. It may, of course, be the other way, and that a patient is let off when he ought to have been condemned; but this is less common than the other because it is safer to tell a man that he is delicate and must take care of himself than to say that he is sound and thus lose the opportunity of betterment which an early diagnosis affords and risk a subsequent breakdown. It is impossible to be sure in many a case of early phthisis but the public cannot understand the difficulty, so there is many and many a one roaming about the world condemned to a useless existence because in such a question years ago innocent or guilty were the only verdicts recorded. I grant the importance of a positive opinion when it can be arrived at. But I object to being driven into giving a decided opinion when there are really no sufficient grounds for arriving at any conclusion or as an alternative of being considered incompetent. What's in a name? Well, a very great deal to the general public. I am constantly told: "You must give the disease a name." As soon as the average man has his disease ticketed he seems to be quite happy. He thinks then that the medical man knows all about it. If his disease cannot be ticketed he assumes that the medical man knows nothing about it. Some years ago I saw a woman who was obviously very ill with chronic diarrhœa. It was possible that the real nature of the disease was of cancerous character, but acting upon a rule I have long made for myself, that of two opinions, if the one is hopeless choose the hopeful one if you honestly can, I told the family that the malady was a chronic diarrhœa. Some few weeks later I received a letter from the son to say that having taken so much interest in the case they thought I should like to know that their dear mother had died from sprue. They seemed to be quite content that their dear mother should die from sprue, which is chronic diarrhœa, but they were not content with anything so very commonplace as the synonym that I had applied to the complaint. That did not seem to them to be a disease.

Again, it often happens that someone suffers from a doubtful tumour. It may be a cancer, maybe not. The opinion of the man who is not sure is worth nothing. The patient is therefore taken by his friends from one medical man to another till a decided opinion is obtained. And I have often noticed that contentment is arrived at even with an adverse verdict, provided that there is no longer any room for doubt as to the nature of the malady. But this seems to me to be a most irrational proceeding, for where the satisfaction comes in it is hard to see. And this leads me to say, though it is a little beside the mark, that this is not done by the sick man in most cases. He always clings to the man who will give a hopeful outlook. He may sometimes tell you that he wants to know the truth, but in the greater number of cases he is really hoping to hear that the outlook is a favourable one, and I have several times known, when, in response to an entreaty, it has been revealed to the sick man that his prospects of health were bad, that he has shifted his patronage to some other medical man who can take some more mitigated view. The sick man cannot go outside himself, and that living principle of which I have already spoken will not let him give up hope; and in respect of this point I am often told that this one or that one "will want to know everything. What are you going to tell him?" I reply: "I shall answer his questions"; and I seldom find that I cannot do so, because it is seldom indeed that anyone asks me that tremendous question, "Am I going to die?" Man is incapable of looking at the worst. This is not because he has no hopes for the future, it is not that he is determinedly blind—he simply cannot do it. I have seen some striking instances of this. I remember a medical man who suffered from a disease that if he had seen it in one of his patients he would have said, without a shadow of doubt in his mind, "This will end his life before long." But in his own case he never, so far as I could see, looked that way at all. He made all his plans, on the contrary, as if he were going to get well, and, as I firmly believe, he hastened his end by the extreme rigidity with which he applied himself to getting well. I accept, therefore, this as a great fact in human life, I take it that a kind providence has ordained it so, and I decline to interfere, as some would seem to wish me to do, and spoil this beneficent attribute of life. If a man has a malady that may be, say, a cancer, maybe not, I say, if it be a cancer there is an end of the matter; nothing more can be done save to alleviate symptoms. You had much better hope on and do the best that that hope affords. You are none the worse off, and you are free for a time, speaking only from the human point of view, from the complete paralysis of despair.

And while upon the importance attached by the public to names perhaps I may say also how very careful a medical man has to be in the use of his words. Indeed, for this reason the older one grows the less communicative a man becomes. For instance, it is not at all uncommon for things to fall out thus. You go and see a case of pleurisy, thus rightly called by the medical man of first instance; and in discussing the matter with the friends you in natural course talk of inflammation. Quite speedily the scene changes. They exclaim at once, "Oh, he has got inflammation, has he? Doctor A. never told us that." To have got the inflammation is to be all right or all wrong, as the case may be. The term either satisfies or alarms. On the one hand, it is one of the diseases that the layman *recognises*, and therefore he knows where he is, and meeting with an old enemy he proceeds to subdue it by turpentine, mustard poultices, various embrocations, in many cases the medical man standing afar off. There is no obscurity about "inflammation"—anybody can treat it—and in this light it is a term of satisfaction. On the other hand, with some inflammation is a word of terror, a thing which, if you do not quickly get the upper hand of, will quickly have the upper hand of you; and so if you have, say, a pleurisy, and have not thought of it hitherto, or heard it talked of under that head, you are very likely to think that some new discovery has been made in the nature of your complaint, and that there has been some serious oversight.

Time would fail me even if I could remember the many curious twists and contortions that the original meanings of words undergo when, having been stated plainly, as he thinks, the medical man hears them translated again by others. "The doctor says I've got slugs in my liver," says an old woman. "No," says her listener, "he didn't say that; he said you had a sluggish liver." "Yes," replies the old woman, "they be the very words he used." And there is another side to this matter, for the public are curiously *gauche* sometimes in their use of words. A medical man wrote thus to me the other day in sending a case for an opinion. "I would," says he, "have commended him to you as being a particularly decent fellow had he not remarked to me

when I suggested the consultation that he thought he would like some *good* advice." Well, then, those doubts that I have spoken of lead me to another difficulty between medical men and patient. Any excessive caution, as it seems, on the part of the medical man is often keenly resented by the patient. Say, for instance, that a young woman consults me for acute indigestion. She has suffered years before from hæmorrhage from a gastric ulcer. She was then treated quite properly by a man who knew his business by rest in bed and a somewhat long attendance, and now, fearing a repetition of this, she comes to me hoping to avoid it. She is quite angry at being sent back again after all to bed and her old friend, and thinks it all nonsense, if not worse, a job. And I am not altogether without some excuses for her. She is very human. I know that when I take my watch to the watchmaker because it has somehow perversely ceased to go he always seems to me to say, "Yes, sir, it has had a fall and the cylinder is broken." And I, knowing nothing about watches or how small a jar may disturb and disarrange their constitution, disallow the reputed blow, and have a strong doubt about the correctness of the watchmaker's diagnosis of a damaged cylinder, more especially because it seems to be about the most expensive breakage that can happen to a watch. Now, the public seems to me to regard medical men from the same point of view that I look at my watchmaker. They know nothing about medicine or the reasons upon which such and such advice is based. They only know that the recommendations are disagreeable, and they think, therefore, in much the same strain as is here recorded in Mr. Gilfil's love story: "Dame Fripp kept leeches and was understood to have such a remarkable influence over those wilful animals in inducing them to bite under the most unpromising circumstances that though her own leeches were usually rejected from a suspicion that they had lost their appetite, she herself was constantly called in to apply the more lively individuals furnished from Mr. Pilgrim's surgery when, as was very often the case, one of that clever man's paying patients was attacked with inflammation."

Another point that the man in the street does not seem to be able to grasp in the least is that all our organs are interdependent upon the integrity of the whole. It is impossible that he can do so when the rage for specialists is so severe. A man treats his component parts as separate entities, and physics this one or that according as it shows signs of what he considers as defect. But the curious part of it all is that although he is very ready to believe all manner of ills of his liver, his heart, or kidney, or what not, he never seems to think any evil of his brain. The only brain disease the public knows is insanity. It is very keen in its dread of going out of its mind, and many a man, I believe, does so from very fright and brooding on such a terrible possibility. But as to the brain having any connexion with, much less control of, say, the stomach or the liver or any other part, they have no conception. Now, I do hope that I am not running away with an idea; but if not, the great proportion of people that come before me are suffering, not from disease of this organ or that of the digestive or circulatory system, but from deficient driving power in their nervous centres. Their brain cells and nervous centres want stoking to enable them to distribute their energy better; to enable them to exercise more effective control over the action of the viscera to coördinate the action of this one and that one, and, perhaps best of all, to learn to control themselves. Their worst enemies are often they of their own household. These people, as a rule, want very little medicine, they have usually taken already more than enough; but what they especially require is a talk upon elementary physiology; it is only thus that any adequate explanation of their various ills can be given them, only thus can they be made to understand why they are sound yet out of health. Did these people but know a little more about themselves how much more healthy and happy they would be. It was but recently that I was advising a man whose heart had failed for the second time under the effects of prolonged mental work. One of the most intelligent of men, he had nevertheless often maintained that brain work has no influence on the body. This is only another way of stating that old absurdity that it is worry, not work, that kills. If all you mean by work is that healthy physiological exercise of a part does not wear it out the aphorism is self-evident and meaningless. If you mean that work that eats into the time that is required for rest and recuperation, whether by sleep or holiday, does not kill, then it is absurd. Do you suppose that a man can go buried in, say, financial problems for many hours during the day, leaving him no time for exercise and little for sleep, without suffering from short commons of nervous energy in other parts of his economy? Therefore, continuous work of any kind—over-work—that trenches upon the necessary physiological rest will kill, or produce functional and organic disease of one kind or another. And I have not a shadow of doubt that one man may come to you always tired, another with a palpitating or a dilated heart, another with indigestion, another with some other organ at fault, because the central nervous system, that ought to energise the whole, has played itself out incontinently on its own account, and the reserves for the local centres are exhausted. Let us next take the question of drugs, because it well illustrates the difficulty there is in treating adequately the subject I have chosen. It is so bound up with the contrariety of attitude exhibited by the public. For a good large section of mankind in the civilised world the love of physic, or perhaps I ought rather to say the craving desire to swallow it, appears to be unconquerable. Do you question it? Then go into the first druggist's shop as you leave this room and stand in its centre and ponder. It is true the proprietor may think you a lunatic, but you ought to learn a useful lesson at this small cost. A druggist's counter always seems to me an appalling thing, until I fall almost to questioning the advantages of a civilisation that has brought us to such a pass. I have always contended that as the world grows older it tends to grow more nervous. I do not see how it can well be otherwise if you and I are at one in what we mean by nervous. I do not mean timid, I do not mean mad. Either of these imputations, which he often supplies for himself, the man in the street is highly resentful of. I mean that as the world grows it is brain that is pitted against brain, and ever and ever increasingly so. It is not liver against liver, or kidney against kidney, or heart against heart, or only indirectly so. The strain does not come on the individual workman, but on the foreman of the works who has to regulate and coördinate the whole. Thus it is nerve that is pitted against nerve until the brain becomes more intricate, a more and more perfect mechanism, and in its perfection all the more readily likely to break down or get out of order. I do not see what else is possible. I am told that in the days long gone by, when living and life were very insecure, there was much more to upset one's nerves than there is now. I do not see any force in that argument. In those days it was more directly heart against heart and liver against liver; the strongest animal lived the longest. In those days strength of body counted for everything. But now the scene has shifted, strength of body occupies a subordinate place, and the rude rough life that made one tough, except in so far that a reasonable cultivation of a strong body is necessary to a sound nervous system, has given place to what sooner or later was bound to be, the commanding influence of the brain. I am told that the brain of the ancient was as good as ours. But again I think that the argument is faulty. For I take it that the history of states is like the history of individuals, that for both there is a birth, a period of growth, a zenith, a decline and fall. Of all the great states of old, where are they now? and it is to me one of the most interesting questions of the day whether it be possible in our attempts to bolster up modern Greece to re-endow a nation with a second life. For myself, then, I do not doubt, though it may be as yet a far cry, that England must decay. It will live again, but not as England; it will be, as we live, in our children, in the nations that are now growing up, as the American nation, the Australian nation, the Canadian Dominion, and so on. Civilisation leads inevitably, apparently, to luxury, and the luxury of life tends to degeneration, and so a nation gradually becomes effete and dies. And in its period of gradual decay it sees its children taking on the spirit of its glory in new lands, where, again, life is less secure; where, again, man has to obtain his bare subsistence by the rude instincts of self-preservation; and where in a more animal existence he is kept more physically robust. It may seem a sad thing to hold that progress and development bring on decay, but so I think things are at present. But we may well hope that at some time or other in the world's history some community will emerge that shall have solved the great question how to live. To live such a life of physiological righteousness individually and collectively that no one organ or sense or function will be cultivated to the detriment of the rest, and that excess of luxury which after all can only be a parasite and in no sense a necessity of progress,

may thus be curbed, and all the higher intellectual faculties left free to act towards a progressive individual and common good. But the history of societies teaches I am afraid that this is no condition easy of production. One might even fear it were impossible. At any rate, the individual feels, and feels acutely, if he thinks at all, that so great is the resolution constantly required to attain an end of this kind that most of us might well apply to ourselves the *positive* of St. Paul's conditional and say, "When I have preached to others I myself shall be a castaway."

Now I think the latter-day increase of the number of drugs applies itself to my argument and enforces it. You cannot suppose that if one of our best furnished druggist's shops were straightway planted, say, in Central Africa that there would be any use for the greater proportion of its constituents. I daresay the blue and green and yellow and red of the windows might secure the adoration of the natives, in fear lest the end of the world had come, and which the instinct of life, there as here, would resent. The interior might even strengthen the intensity of their religious beliefs, if they should light upon some of the more potent remedies that made them "see stars." The medical man who knew his business would probably select, say, some fifteen common and valuable remedies which, unlike Sir John Lubbock's 100 best books, I will not name, lest you should exclaim as I did, "What a poor dull lot!" and of all that large remainder I fear it would have to be said, not only that they were not wanted, but that they spelt absolute harm to the poor savage. Now mark, I do not say they therefore mean harm to us, but they do mean, they must mean, since they multiply daily by leaps and bounds, that we have in our civilised state numberless ills that rude nature is unfamiliar with, and, also, I surely believe that we appeal far too readily to potions and pills for ills that are little *worries* rather than ills. In other words, our nervous centres take much more ready cognisance of ills than robust organisms should do, and we thus use many drugs to live still more the life of luxurious ease. Yes, we most of us take medicines too readily; but there is one thing that few of us take, and that is advice. I sometimes see as I go along the streets a notice in certain windows—not devoted to the emissaries of the law—"Advice gratis." And I always count medicine an unhappy profession because we all know that if that notice read "Advice charged for" not a soul would go near that druggist's door. The law is much better off because it charges and is paid for advice that is also not taken, unless, indeed, it be as medicine under compulsion in the courts with the nose pinched. But neither is that legal betterment the day towards which my hopes go forth for medicine. I look for the day when the world shall pay adequately for and take advice, and physic—well, yes, physic certainly, but only if we medical men deem it necessary. But that is not the idea of the present. Perhaps you think it is. Oh, dear, no! I have a vivid recollection of talking for an hour to a poor fellow, and I remember that I was stirred by a considerable emotion because I thought that I had saved my friend—by *advice*. Judge, then, of my feelings when I heard afterwards that all the time that he had been listening so attentively, and, as I thought, so receptively, to my advice he had got the name of some other man upon his shirtcuff and that he went at once to him and got a prescription, and, unsatisfied by all my talk, a bottle of medicine had put him at rest. Then I have a dear friend in the commercial world who believes in me. It flatters one a little to be believed in by a hard-headed son of the City. But he always tells me, "If you don't cure me in three visits I shall go to someone else," and ever and anon he comes gently ruffled into my room with "My dear fellow, So-and-So has been to you and you never gave him any medicine." "No," say I, "he did not want medicine." "That doesn't matter," responds he; "he came for a prescription and he ought to have it. People don't think anything of you if you do not give them some physic." And that is all true. My friend quite rightly describes the attitude of the public. It thinks that medical men know much more than we do. That there is a remedy for every disease, ay, every symptom, if only the medical man be clever enough to find it. So if they do not get well "in three visits" they go to someone else. But that is not the way we who know look at things; we see too many diseases that can only be watched, for which there are no present indications for giving drugs, and for, I suppose, the large majority of the ailments that flesh is heir to time is at least as important an element in the cure as any drug. There are others that rest only can cure. Time after time people come to me with an ailment for which they have been taking medicine for weeks, but they had not taken the most important curative agency, rest in bed or a holiday. People will swallow any quantity of nasty medicine, but go to bed, oh, no! that is *weakening*. They will swallow any number of pills to keep their livers up to the mark, but stop their whisky or their daily port, oh, no! they know much more than the doctor about that, and, indeed, "Dr. So-and-So said years ago that I wanted keeping up." Keeping up lays many a one low. Only recently have I seen a man who has tabulated out all the years of his sexagenarian life, and the illnesses he has had in each of many years of it, and the many medical men he has consulted. I am his latest hope. I am afraid it is a case of

"Late! late! so late! you cannot cure him now."

But he is still in full and keen pursuit of health as he has been these last thirty years. He still believes the El Dorado of his health is somewhere near, and yet I was obliged to tell him that the nugget of which he was in search had been long ago buried within him, bound round with grave clothes under the garb of prescriptions.

Medicine can hardly progress to its full expansion so long as this present overblind faith in a nostrum prevails. The uncertainties in all directions are so great that the man of knowledge and experience with all his correct appreciation of the essential details of the case, and therefore generally correct diagnosis, with all his plumbing to its depths the most recent advances in applied therapeutics, may yet miss the mark, and the ignorant man or the quack coming in at the end may fire the last shot and appear to take the fortress and thus run off with the prize of an unearned credit. The public judges entirely by results—I confess I do not see how it can do otherwise—and yet as a criterion the result of a case is repeatedly faulty, for it too often brings reputation to the quack while the honest and wise man is sent about his business in more or less of quite unjust and undiscerning discredit.

But there is a class of people who will take advice, but who run to the other extreme. Here also may be traced a too exaggerated opinion of the medical man's knowledge. We are asked, for instance, to tell a given person what he may eat and drink, and perhaps some one may think: "Well, what more natural or sensible?" Well, natural I admit it is, since so many ask it. But sensible, I am not so sure about. Think it out for yourselves, each one for himself, and you will, I think, find much wisdom in the adage: "A man is either a fool or a physician at forty." Before forty you are not worth much if you cannot eat anything (I do not say drink), and by forty you ought to have arrived at certain conclusions as regards your own individual working that are far and away more trustworthy than any a medical man who does not know you can offer you. I do not for one moment underrate the value of the advice that a medical man who does know you can give you. What I want to drive home is that the exaggerated belief in the precise regulation of all the minute details of your daily life does not lead to your applying to him for advice. A trusty general practitioner who knows you, who has probably watched your growth and life for many years, who knows your quips and cranks of constitution, he can think these matters out with some bases to go upon, and undoubtedly he can help many a man to help himself. He cannot do more—mark that; he can only help a man in most cases to help himself. But this desire for the detailed regulation of your life leads you in nine cases out of ten to a specialist who is supposed to be skilled in diet, and that is nearly always to a so-called fashionable physician or, worse still, to an arrant quack. But what can a stranger really know of you and of your constitution in twenty minutes or half-an-hour's talk? If he be a wise man you will probably come to no harm because his wisdom will keep you on the lines of common-sense. If he be a faddy man you consign yourself to a fad, and thus a large proportion of mankind at one time is drinking hot water by the pint; at another drinking no water at all—at least, not at meals; and at another it is rushing off to some latest fashion in watering-places to cure itself of a disease it has not got, or of a disease, perhaps, for which there is no cure.

And this leads me on to the question of specialists. The public will have specialists. Now, it is admitted at once that for parts that are subject to local diseases and that require delicate surgical treatment a specialist is absolutely necessary. The steady hand and eye of an enormous operative experience is necessary to ensure the best results, but as

regards specialism in medicine it is a rank absurdity. Who is the best man for the heart? Who for the liver? Who for the kidney? Who for the brain? Who is the specialist now on gout, who on asthma, who on this and that are the questions asked on every hand. The man in the street is very fond of talking about his constitution, and yet he is ever doing despite to his very sensible idea when he runs off to a specialist for his liver. He goes off, as he often says, to the fountain head. But in doing so that constitution is clean forgotten. There is that personal element in all diseases that makes medicine still so much an art, and too often in going to a stranger the key to the lock has been left at home in the charge of the family practitioner. "'His father was here afore him,' Mrs. Macfadyen used to explain; 'atween them theyve hed the countyside for weel on tae a century; if Maclure disna understand oor constitution wha does a wud like tae ask?' For Drumtochty had its own constitution and a special throat disease as became a parish which was quite self-contained between the woods and the hills, and not dependant on the lowlands, either for its diseases or its doctor." And having mentioned the constitution and the general practitioner as being *facile princeps* in all questions relating to it, I may say a word upon a cognate matter which perhaps may be called an ethical one except that I dislike the term. All our ethics is comprised in that very old and tersely expressed formula, "Love your neighbour as yourself." I allude to the relations between medical men and their patients. I believe, as a matter of fact, that when you consult a lawyer the official record of the transactions—in other words, the deeds—are kept by him; they are put into a black tin box with your own name in gilt outside, and thenceforth you and your lawyer are one. At least, that is my case. I should need, being nearly a teetotaller, at least three stiff glasses of brandy to enable me to sever my connexion with my lawyer, and I am by no means certain that that would do more than change, so to speak, the character of the bond that united us. But in medicine it is very different. Between the medical man and his patient the only bond of union that is at all of a material kind is that the medical man dispenses the medicine. And the patient, though he will sniff and sniff again at the bottle to try to detect the ingredients, and very likely ask a friend with a reputedly more educated nose to sniff too, is practically helpless in the divination required and is unable to tell what he is taking. But, unfortunately, this is too often a bond of discord, not of union. The average Englishman does not like being under the thumb of anyone, and when he does not know what medicine he is taking he considers himself under the thumb of his medical man, and he by-and-by slips off to some neighbouring town to get, as he *says*, "an unbiased opinion," and with it, as he *thinks*, a prescription, that he may be a free man once more and know what he is taking, and pass his good fortune, maybe, on to someone else who happens to be suffering from very similar symptoms, but from an entirely different disease. And if there be anything that shrivels up a medical man's bowels of compassion it is an action such as this. It must be so; for an old friend of mine, a medical man, in reply to a kindly note I had written to him on the birth of his firstborn wrote back in this curiously Malaprop fashion as one of the chief elements of the happiness of his situation: "Thank God! I am out of the range of the curse of consultants."

Patients and medical men look upon their mutual relationship from different points of view. The man in the street in this instance takes a business view of his association with his adviser. He considers that the payment of the bill is the just equivalent, the *quid pro quo* that settles all claims—indeed, he has been known to think that the *quid* was more than the *quo* and to grumble thereat—and that he can henceforth try, if he be so minded, the latest fashion—the young man who has just come to town, and who is "so clever" (it is only the young that are "so clever"). But the medical man looks at things very differently. He feels, and rightly feels, if it be kept within due limits—but I think we are inclined to push it too far—that in the great majority of cases he undertakes responsibilities, undergoes sacrifices, and enters into delicate relationships by becoming in large measure a partner in other people's anxieties and sorrows as well as having to bear all his own, for the wear and tear of which no money payment is an equivalent. The only payment that we accept as payment *in full* is gratitude, and gratitude for imponderable service such as medicine renders to mankind is too often a stream with full head which rapidly gushes itself out. There is much truth as well as humour in "Gratitude is a lively expectation of favours to come." No medical man could be such and conduct his business on purely business principles. I will not claim for the profession of medicine, that it is more righteous than any other calling in life, but I should always maintain that, however much the public might think and wish to have it otherwise, the larger half of the practice of medicine is, and must be, pure philanthropy. Not a case comes before one probably but that much more is done for it than ever the patient supposes. He supposes that he comes for an opinion and he gets it, and that that is the whole of the transaction. If that were all one had to do medicine would be much simpler, perhaps, but it would be much less enthralling. But before forming an opinion you probably have to throw yourself into the position in life of the patient as far as possible, to realise yourself his hopes and his fears, his troubles here and his ties there, and numberless things that have nothing to do with the disease, but everything to do with the treatment and with your power to give the very best advice that the circumstances of the case admit of. And when you have come to an opinion there is then again the necessity of entering into the man's feelings and shaping your words in accordance therewith. Thus at the end of any investigation the larger number of items in the bill cannot possibly be discharged by any equivalent in gold. You have been obliged, even though willingly, to become the friend and confidant of a family, and friendship and sympathy cannot be bought or sold. It is often said, "You doctors are hard men." I have even heard it said of the ladies who have taken to the practice of physic that they, too, upon occasion are not too conspicuous for the exhibition of sympathy. Well, a medical man cannot wear his heart upon his sleeve. I sometimes reply if you could but join us you would know that it is scarcely possible to be hard in the practice of medicine. The outsider knows nothing of the storms of anxiety, born entirely of sympathy, that sweep through the mind of the medical man when harassed by a critical case. Have I done the best possible thing? is present night and day, perhaps for many days together, upon such occasions, and the relief that is experienced when the sick one emerges from danger is so keen that it can only be compared to the feelings of the convalescent himself when he returns to the pleasure of living.

"'Can naethin' be dune, doctor? Ye savit Flora Cammil and young Burnbrae, an' yon shepherd's wife Dunleith wy, an' we were a' sae prood o' ye, an' pleased tae think that ye hed keepit deith frae anither hame. Can ye no think o' *somethin'* tae help Annie, and gie her back tae her man and bairnies?' and Tammas *searched* the doctor's face in the cold weird light.

"'There's nae pooer in heaven or airth like luve,' Marget said to me afterwards. ..... 'Oor herts were as water afore Tammas's words, an' a' saw the doctor shake in his saddle. A' never kent till that meenut hoo he had a share in a' body's grief, an' carried the heaviest wecht o' a' the Glen. A' peetied him wi' Tammas looking at him sae wistfully, as if he had the keys o' life an' deith in his hands.'"

Thus there does grow up in the medical man's being a sense of a peculiarly close interest in the life that in God's good providence he has helped to steer through the quicksands of illness, and he comes to look upon his patients as in some sort his children, and to claim from them an allegiance in all matters pertaining to their health, which they at the most but very imperfectly recognise, and the binding nature of which they cannot therefore understand. But this relationship between men and their family practitioner is a very valuable one, and should be tenderly cherished. For I think there can be no doubt that the tendency in modern life is to change this old, and as I think salutary order of things. But, as I have already said, you may go to the great man in the town, but you still have a constitution or a temperament, of which you know little, and he may see nothing in one short interview. The three orders of medicine—medicine, surgery, and general practice—are still as necessary as ever they were. You may do without the last-named when there is nothing the matter with you, you may go to the specialists in town for an opinion on an obscure case, or to settle a moot point in treatment; but when one is really ill, then it is that you want, and cannot do without, the man with the cheery voice, the kindly smile, the deft hand, the many-sidedness of resource for easing pain born of long experience in many fields, and with it all the ready self-sacrifice that at times like these makes the medical

man almost seem to be "He that sticketh closer than a brother."

But I must stop. I have even now hardly more than indicated a few of the many points that my subject admitted of, but which were difficult to harmonise within the scope of the interest of an hour. Briefly put, my dominant idea is that man remains much too ignorant at the present day of the rudiments of the workings of his various parts. Thus it happens that at one time there is still a too blind faith in the power of the medical man, and at another time an equally blind intolerance and questioning of the restrictions and regulations that he, in his wisdom, feels called upon to impose. It would be much better for both parties concerned, and much more helpful to the art of healing, if medical man and patient could meet upon some common ground, and if the layman were able to follow the trains of thought that we may wish in some measure to make him understand, to realise in some small measure the great responsibility that medical men have to undertake. I do not suppose that this can be done to any great extent; in the case of the illness of those who are dear to us the issues involved are so tremendous to *us*; that to think on anything, much more on unfamiliar lines, becomes well-nigh impossible. Nevertheless, we should be better off if everyone had learned in some slight fashion to think upon the functions of their various parts and on the way in which those functions are conducted. There would then be less ignorance of the extreme intricacy of the subject; it would be more freely admitted that doubts must arise on all sides; and that watchfulness on the part of the medical man, and patience on the part of the sick man and of his relatives, are often the most important elements in successful treatment. The *Spectator* wrote the other day that "modern medicine discards more and more the old remedies of specific drugs, and relies more and more on the natural agencies, striving to reduce to a minimum artificial devices." And yet how much we see of the old order of things. The mass of mankind does not seem to me to have adequately kept up with this march of medical knowledge, and thus one is still too much in the seethe of excitement over the last new specific; the absolutely impossible is still deemed to be within the range of actual accomplishment; a medicine is still swallowed more as a charm than as a direct means to an end; and ignorance and shrewdness and the chances of life which happily mostly seem to make for health are together able to compete successfully with real knowledge. While this is so it can hardly be wondered at, life being so precious and tenacious as it is, that when common sense advice is tendered it is too likely to be met in the same spirit as of old. "Are not Abana and Pharpar, rivers of Damascus, better than all the waters of Israel? may I not wash in them, and be clean?" And the medical man out of the depths of a yearning disappointment at the apparent hopelessness of his contest against the competing forces is too often driven reproachfully to respond, "If the prophet had bid thee do some *great* thing, wouldest thou not have done it?"

SOME INTESTINAL EXPERIMENTS: A RAPID METHOD OF ENTERECTOMY.

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WHILST in India studying some of the tropical diseases I had the opportunity at Hyderabad of performing several different series of experiments on animals, one of which—on enterectomy—forms the subject of this paper. In this series my endeavour was to devise a rapid and safe method which would obviate: (1) the danger arising from the presence of the large metallic button and the risk of the gangrene spreading further than is necessary in Murphy's operation; (2) the time taken up in closing the two ends, making two new incisions and the presence of the three wounds of the bowel in Senn's method; (3) the two wounds of the gut and the perforation of all its layers by the twenty sutures in Maunsell's; and (4) the invagination or intussusception in Paul's. As the use of mechanical aids presents many advantages a digestible substance is needed to avoid the dangers of the metallic button, so decalcified bone and various vegetables were used; to avoid many sutures penetrating all the layers of the bowel it was necessary to find a suitable, rapid, and easy method of suturing which would only include the two outer layers; to have only one wound of the bowel it must be joined end to end. It may be mentioned here that the four operations just referred to were the only new methods of resection with which I was acquainted during these experiments; subsequently I learned of Mayo Robson's, and still later of its modifications by Allingham and Landerer.

Anatomy.—A short account of the anatomy of the dog's bowel may be desirable. It is rather less than one half the diameter of the human bowel; the peritoneal coat is very fragile and easily torn, and there is the usual triangular space at the mesenteric attachment. The vessels radiate from their origin and generally divide about three inches from the bowel into two or three branches, each of which again divides near the gut into two branches, which run in the apex of the triangular space at the mesenteric attachment, one upwards, the other downwards; the former joins the descending and the latter the ascending branches of the adjoining arteries; a chain of loops is thus formed parallel with the gut, and it is from this chain of loops that the terminal arteries are given off to supply the gut. These run transversely to the longitudinal axis of the bowel, some under the peritoneal, the majority in the muscular coat.

The general principle of my operation was adhered to throughout, but the details were modified from time to time for reasons which it may be well to relate briefly.

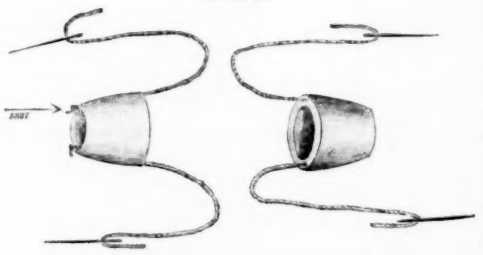
Incision.—The abdominal incision was made in the middle line in the first two cases—both dogs—but as the dressings and wound were continuously bathed in urine it was subsequently made—in dogs—in a direction obliquely downwards and inwards external to the deep epigastric artery. In bitches the median incision was always adopted.

Cones.—In order to bring the ends of the gut together and also to afford support during the suturing I used at first (Cases 1 to 6) two flat discs made from turnip, carrot, decalcified bone, &c. They were made very slightly greater in diameter than the lumen of the bowel, a quarter of an inch thick, with a large central hole and four sutures to each disc. One disc was passed in edgeways into each end of the bowel and rotated so as to lie transversely across the bowel, a fifth of an inch from the cut end. The four sutures were then passed through all the layers of the gut; the two ends of the gut were approximated and held in position by an assistant until the opposite or corresponding pairs of sutures were tied—i.e., mesenteric suture to mesenteric suture. The bowel over these discs being slightly raised allowed of easy suturing. But whilst the second disc was being inserted peristalsis had either expelled or so altered the position of the first that it had to be readjusted, and considerable time was thus lost, and even after the four pairs of sutures had been tied peristalsis caused the discs to lie obliquely. To overcome this clamps were placed across the bowel immediately above the discs when these were in position (Cases 3 to 6), and by the assistant keeping the four sutures tight the shifting was to a large extent controlled, and after the sutures had been tied the clamps kept the discs in position during the subsequent suturing, but the loops of the continuous suture used to unite the cut ends of the bowel repeatedly caught in one or other of the ends of the clamps and caused considerable delay. Owing to the time taken up in inserting and rotating these discs into position, the difficulty of retaining them in their position, and the further loss of time due to the catching of the suture round the clamps, these discs were discarded for two hollow cylinders, three quarters of an inch long, made from the decalcified femora of geese or turkeys. Two sutures were attached to each of these cylinders. These were easier to insert; the first was easily kept in position whilst the second was being inserted, and when the sutures had been passed through all the layers of the gut and the two opposite pairs tied no change of position could take place. As these cylinders required several days for their manufacture and allowed of but a very small amount of bevelling of one end, which is desirable in order to facilitate their insertion, they were subsequently made, immediately before the operation, from fresh carrots, turnips, or potatoes, in the form of a hollow, truncated cone (Cases 12 to 59), the apex being less than, and the base the diameter of, the lumen of the bowel. (Fig. 1). Each "cone" was furnished with two sutures, which were passed through its wall, from the apex to the base, one on each side; a big knot at the end of the suture (made

by passing the end six or seven times through the loop before drawing tight) prevented the suture being pulled through the cone. They answered extremely well and were most rapidly and easily inserted.

Sutures.—Lembert's and Halstead's interrupted sutures were used in Cases 1 to 4 and 16 to 18 respectively, but were discarded for a more expeditious method. A "button-hole" suture was employed (Cases 5 to 15 and 19) but rejected because (1) it was difficult to avoid tearing through the very delicate peritoneal coat when drawing the transverse loops tight; and (2) the needle had to be inserted in the line of the longitudinal axis of the bowel, and

FIG. 1.



Cones with sutures and needles attached.

it was impossible to avoid at times wounding the terminal branches of the mesenteric artery running transversely to the axis in the muscular coat, as these cannot be seen. In three cases (Cases 6, 13, and 15) these vessels were transfixed and had to be underpinned. All three died, and one death (Case 13) was clearly due to the ligaturing of this artery. 3. In drawing the loops sufficiently tightly together the blood-flow in those arteries included in the loops was retarded and union thus delayed. On the whole it is an excellent and rapid stitch, and by a little manœuvring (pulling the needle towards the last loop until the new loop is sufficiently tight) the first objection can be generally avoided. The second and third objections—transfixion and retarded blood-flow—rendered it desirable that the needle during its passages through the wall of the bowel should be parallel to the terminal vessels. An ordinary overhand continuous suture was tried (Cases 20 and 21) and rejected on account of the slight puckering of the serous coat, and because the needle had to be inserted at right angles to the vessels. In consequence the following suture was tried. A needle was threaded on each end of some fine Chinese twist silk; one needle was inserted an eighth of an inch from the cut margin of the bowel and passed along parallel with it for one-eighth of an inch through the serous and muscular coats only, the other needle was then used similarly on the other cut end, the entry and exit of the two needles being opposite one another respectively. The suture was drawn through equally on both sides and the right hand needle then brought over the cut margins and inserted close to the exit of the left and used as before; the left needle was in like manner inserted on the right side. In this way the bowel was rapidly surrounded, the edges being inverted as the stitches were drawn tight. This suture is unsafe and was only employed twice (Cases 22 and 23); both operations were performed on the same day and both dogs died two days after. The post-mortem examination in each case showed that the suture had tightened on one side and loosened on the other and that extravasation had taken place where the suture had opened out.[1] The suture was therefore modified by a reef knot being tied each time the two needles were brought out. This answered very well and the whole circumference could be surrounded in a few minutes (Cases 24 to 26). Experience proved, however, that a double turn was as efficacious as the knot, and as it saved time it was employed from Case 27 to the end. It is advisable to have two or more of these "two-needled" sutures at hand.

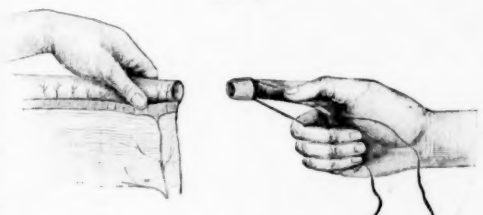
Needles.—Various forms of needles were used for suturing the bowel. It was found that small, round, straight needles with fairly big eyes were best adapted for this purpose; they are easier to use than the curved as they do not rotate or slip between the fingers and are very easily inserted over the convex surface of the cone.

Graft.—An omental graft was applied around the bowel at the site of resection in thirteen of my cases and in three of Dr. Conolly's. It was omitted in all the subsequent cases for reasons which will be fully discussed under the heading of "Remarks."

Mesentery.—A wedge-shaped portion of the mesentery was always removed. It was found that the nearer the edges were to the adjoining arteries the better was the result. The triangular spaces at the mesenteric attachment were closed and brought together by a separate suture. In Case 24 this was not done, and when the dog was subsequently killed a hole was found in the mesentery large enough for another coil to have slipped through.

Operation.—Having thus recounted the changes in the details from time to time the operation as performed in all my later cases (Cases 27 to 59) will now be described. The dog having been chloroformed, the abdomen shaved, and carefully washed, an incision was made two inches long and all the bleeding stopped before opening the peritoneum. The gut to be excised was brought up through a hole in an antiseptic towel and carefully packed all round with sponges. The branch or branches of the mesenteric artery running to the portion of gut to be removed were secured by thrusting the points of a pair of Spencer Wells's forceps through the mesentery on either side of the artery from two and a half to three inches from the bowel; then with two pairs of Spencer Wells's forceps the arterial loops running in the triangular space at the mesenteric attachment were secured in the same way on a level with the points at which it was decided to resect the bowel.[2] The bowel was then divided at right angles to its longitudinal axis with scissors over a large flat sponge on a level with the two latter pairs of forceps, of course on the occluded side of the arteries. By continuing these cuts to the first pair of forceps a wedge-shaped portion of mesentery was removed. The three arteries were then ligatured. The section of the gut caused great contraction of the circular and longitudinal muscle, resulting in great narrowing of the lumen by the former and protrusion of the mucous coat by the latter. This was overcome by the insertion of the tip of the little finger, on withdrawing which one of the cones was at once inserted, apex first (see Fig. 2),

FIG. 2.



Mode of insertion of cone.

and the "cone-sutures" were passed through all the layers of the bowel an eighth of an inch from the cut margin, one at the mesenteric attachment and the other at the opposite side of the gut. The other cone was similarly passed and, both being in position, the assistant approximated the ends of the bowel and the corresponding pairs of sutures were tied moderately tightly. The ends of the sutures were cut as short as possible. The cut ends of the gut were thus fixed in contact, slight inversion of the ends occurring at the two sutures. The bowel was then rotated on its longitudinal axis so as to bring the mesenteric attachment forwards and nearly half an inch of the under side of the gut into view through the severed edges of the mesentery (this was done in order that the mesenteric attachment, the most difficult portion, might be sutured first). The continuous

[1] Since this paper was written I have seen in Treves's "Operative Surgery" that this suture was devised by Gély. In my opinion it is an unreliable suture for the reason above stated.

[2] This method of dealing with the arteries proved to be much more satisfactory than the usual way, and it is much to be preferred to that of dividing the arteries first and picking them up afterwards, as the whole operation is bloodless. Rarely a small muscular branch opposite the mesenteric attachment and running in the direction of the axis of the bowel was found and needed ligature; there is always an artery in this position at the upper portion of the jejunum.

TABULAR STATEMENT OF CASES.

Case.	Date of operation.	Sex and condition.	Incision.	Length of intestine excised.	Form of disc, cone, &c.	Suture used to unite bowel.	Graft.	Time taken by operation from skin incision to last parietal suture.	Remarks.
1	Aug. 15th, 1895.	Large healthy male. Tapeworms.	Median	2 in.	Discs of decalcified bone	Lembert's	Graft	1 hour	Continual shifting of discs caused great delay. Evisceration during vomiting and intestine urinated over. Hypodermic injection of morphia ⅓ gr. Died on the fourth day. *Necropsy.*—No peritonitis except over graft, which was adherent to three coils of intestine. No extravasation. Union of gut firm all round. Lumen diminished about one-third. No obvious cause of death.
2	Aug. 18th, 1895.	Emaciated, unhealthy male. Tapeworms.	Median	6 in.	Discs of turnip	Lembert's	Graft	1 hour	Same difficulty with discs and evisceration during vomiting. Hypodermic injection of morphia ⅓ gr. Killed by overdose of chloroform on ninth day. *Necropsy.*—No peritonitis. Graft adherent to two other coils. Lumen reduced about one-third. Wound of gut firmly united. Partial occlusion due to acute bending by adhesions.
3	Aug. 23th, 1895.	Unhealthy male. Bowel full of tapeworms.	Lateral	6 in.	Discs of decalcified bone	Lembert's	Graft	45 min.	Clamps were used to check shifting of discs. Lateral incision to avoid dog urinating on dressings and wound. Hypodermic injection of morphia ⅓ gr. During the first two months the dog did well and grew fat and big. Signs of obstruction then appeared. (Vide text for further particulars.)
4	Aug. 26th, 1895.	Medium sized male.	Lateral	3 in.	Discs of decalcified bone	Lembert's	Graft	50 min.	Discs slightly too large. Clamps again used. Loop of artery at mesenteric attachment was transfixed and ligatured. Hypodermic injection of morphia ⅓ gr. Died on the fourth day. *Necropsy.*—Gangrene of end of bowel over disc on the side of the ligatured arterial loop. Graft adherent to two other coils.
5	Aug. 30th, 1895.	Emaciated male. Tapeworms.	Lateral	4 in.	Discs of turnip	Button-hole	Graft	50 min.	Suture more rapid than Lembert's, but loops continually caught in clamps and tore through in three places. Hypodermic injection of morphia ⅓ gr. Excellent recovery.
6	Sept. 3rd, 1895.	Healthy male. Tapeworms.	Lateral	4 in.	Discs of decalcified bone	Button-hole	Graft	50 min.	Transfixed small muscular branch of artery, which had to be underpinned. Hypodermic injection of morphia ⅓ gr. Died on the fourth day. *Necropsy.*—Peritonitis, extravasation along mesenteric disc-suture and under and through graft. Line of union sound except at this point. Graft adherent to two coils.
7	Sept. 5th, 1895.	Healthy male.	Lateral	6 in.	Cylinders of decalcified bone with two sutures to each	Button-hole	Graft	40 min.	Cylinders easier to insert, kept in position most easily by assistant's finger, and after the two pairs of sutures were tied no change in position took place. Clamps were not used. Hypodermic injection of morphia ⅓ gr. Died eight hours after, possibly due to large dose of morphia; its use was abandoned in all subsequent cases. The line of resection was watertight.
8	Sept. 6th, 1895.	Small, unhealthy male. Tapeworms.	Lateral	3 in.	Cylinders as in No. 7	Button-hole	Graft	38 min.	Killed on the sixth day. *Necropsy.*—The graft was adherent to three other coils. The gut was firmly united. Contraction of graft had greatly reduced the lumen of the bowel and also caused an annular fold of its wall.
9	Sept. 8th, 1895.	Small male.	Lateral	3 in.	Cylinders (slightly bevelled at one end)	Button-hole	Graft	28 min.	The bevelling of the cylinders facilitated their insertion. The suture tore through in one place. Dog did well until the fourth day, then refused food and seemed poorly; the abdomen was hard and retracted. Whilst an exploratory incision was being made respiration ceased, and all attempts to restore it failed. The heart beat for 2½ min. after respiration ceased. *Necropsy.*—No peritonitis except over graft, which was adherent to three other coils. The gut was firmly united all round; the lumen was slightly diminished.

TABULAR STATEMENT OF CASES—*Continued.*

Case.	Date of operation.	Sex and condition.	Incision.	Length of intestine excised.	Form of disc, cone, &c.	Suture used to unite bowel.	Graft.	Time taken by operation from skin incision to last parietal suture	Remarks.
10	Sept. 12th, 1895.	Emaciated female Tapeworms.	Median	4 in.	Cylinders as in No. 9	Button-hole	Not used	30 min.	Suture tore through in two places. On March 3rd, 1896, the bitch gave birth to a litter of six pups. The bitch was much larger and healthier. On May 5th, 1896, half the spleen was excised (vide Case 9, "Conservative Surgery of the Spleen"). The bowel was inspected, and the site of resection was indistinguishable from the rest of the gut but for one thin adhesion.
11	Sept. 13th, 1895.	Healthy female.	Median	2 in.	Cylinders as in No. 9	Button-hole	Graft	28 min.	Excellent recovery. On April 29th, 1896, the bitch deserted.
12	Sept. 18th, 1895.	Large male. Tapeworms.	Lateral	5 in.	Hollow truncated cones made from carrot	Button-hole	Graft	25 min.	Cones much more easily inserted. Dog did well. Killed on the sixth day. *Necropsy.*—Graft was adherent to two other coils. About ten drops of pus under graft at mesenteric attachment. Cone-suture knot was lying in this cavity. Partial occlusion by acute bending due to adhesions; lumen was also contracted by graft, which had also caused a small annular fold of the wall.
13	Sept. 20th, 1895.	Large female. Tapeworms.	Median	3 in.	Cones as in No. 12	Button-hole	Graft	30 min.	During the suturing a muscular branch was transfixed and had to be underpinned. Died on the third day. *Necropsy.*—General peritonitis—gangrene of that portion of margin to which the underpinned artery went. Graft was adherent to two coils.
14	Sept. 22nd, 1895.	Healthy male.	Lateral	6 in.	Cones	Button-hole	Graft	35 min.	Dog extremely savage and violent, chained to stake. On the third day free hæmorrhage from wound; exploration revealed a very large spleen, torn almost in two. It was killed; the union of gut was firm. Graft was adherent to two other coils.
15	Sept. 25th, 1895.	Large male. Tapeworms.	Lateral	12 in.	Cones	Button-hole	Not used	24 min	During the suturing a muscular branch was transfixed and underpinned. Died on the fifth day. *Necropsy*—General peritonitis, extravasation along mesenteric cone, suture.
16	Sept. 25th, 1895.	Medium-size male. Tapeworms.	Lateral	10 in.	Cones	Halstead's	Not used	30 min.	Excellent recovery.
17	Sept. 27th, 1895.	Healthy female.	Lateral	13 in.	Cones	Halstead's	Not used	30 min.	Pregnant at time of operation; condition found after the abdomen was opened. On Nov. 11th, 1895, she gave birth to a litter of six pups. Excellent recovery.
18	Sept. 28th, 1895.	Large healthy male.	Lateral	5 in.	Cones	Halstead's	Not used	22 min.	Uninterrupted recovery. Killed on the twenty-seventh day. *Necropsy.*—One coil was loosely adherent to line of resection. Union of gut was perfect. Calibre was that of the rest of the bowel.
19	Sept. 30th, 1895.	Healthy female.	Median	2 in.	Cones	Button-hole	Not used	28 min.	Excellent recovery.
20	Oct. 2nd, 1895.	Female.	Median	6 in.	Cones	Overhand continuous	Not used	22 min.	Suture caused slight puckering of serous coat. Excellent recovery.
21	Oct. 5th, 1895.	Healthy male.	Lateral	9 in.	Cones	Overhand continuous	Not used	25 min.	Suture caused slight puckering of serous coat. Excellent recovery.
22	Oct. 7th, 1895.	Small healthy male. Tapeworms.	Lateral	8 in.	Cones	Double-needled crossed suture	Not used	20 min.	Very rapid suture. Died on the third day. *Necropsy.*—General peritonitis; extravasation through small opening in line of resection where the stitch had "opened out."
23	Oct. 7th, 1895.	Unhealthy female. Tapeworms.	Median	6 in.	Cones	Same as No. 22	Not used	18 min.	Died on the third day. *Necropsy.*—Same as in No. 22.
24	Oct. 11th, 1895.	Small female. Tapeworms.	Median	14 in.	Cones	Knotted crossed	Not used	28 min. (delayed by artificial respiration)	Rapid suture; dog did well. Killed on the seventh day. *Necropsy.*—Perfect union of gut, small opening in mesentery close to bowel.
25	Oct. 12th, 1895.	Unhealthy emaciated male. Tapeworms.	Lateral	6 in.	Cones	Same as in No. 24	Not used	18 min.	Excellent recovery.

TABULAR STATEMENT OF CASES—*Continued.*

Case.	Date of operation.	Sex and condition.	Incision.	Length of intestine excised.	Form of disc, cone, &c.	Suture used to unite bowel.	Graft.	Time taken by operation from skin incision to last parietal suture.	Remarks.
26	Oct. 13th, 1895.	Small emaciated female. Tapeworms.	Median	15 in.	Cones	Same as in No. 24	Not used	18 min.	Bowel full of tapeworms. Died on the fourth day. *Necropsy.*—General peritonitis; extravasation along the cone-suture opposite the mesenteric attachment, the ends of which had not been cut short enough or properly inverted. They lay between the two inverted margins of the gut and were included in one of the loops of the crossed suture. The bowel immediately around this suture was softened and the peritoneum separated by exudation from the muscular coat.
27	Oct. 15th, 1895.	Very small male.	Lateral	12 in.	Cones	Crossed with two turns instead of the knot	Not used	28 min. (twice delayed by artificial respiration)	Uninterrupted recovery. Dog grew big and fat. Killed on March 25th, 1896 (161st day). *Necropsy.*—Bowel was adherent to one other coil. This and the two mesenteric branches being parallel and close together were the only indications of the line of resection. The lumen was that of the rest of the bowel.
28	Oct. 16th, 1895.	Medium size female.	Median	9 in.	Cones	Same as No. 26	Not used	19 min.	Excellent recovery.
29	Oct. 17th, 1895.	Medium size male. Tapeworms.	Lateral	15 in.	Cones	Same as No. 26	Not used	20 min.	Dog did well. Killed on the ninth day. *Necropsy.*—Line of union was perfect, adherent to one other coil. "Cone sutures" still lying on mucous surface.
30	Oct. 18th, 1895.	Healthy female.	Median	14 in	Cones	Same	Not used	19 min.	Excellent recovery.
31	Oct. 20th, 1895.	Large violent male.	Lateral	8 in.	Cones	Same	Not used	18 min.	Dog being very violent was chained to a stake. On the fifth day—twenty minutes after I had seen him fed—I was called and found that the dog had impaled himself on the stake, torn open the parietal wound, and that the intestine had got entangled round his legs and the stake and was torn in pieces. An overdose of chloroform was at once given, when it was seen that the dog had almost completely disembowelled himself.
32	Oct. 24th, 1895.	Emaciated male. Tapeworms.	Lateral	13 in.	Cones	Same	Not used	19 min.	Uninterrupted recovery. Killed on the nineteenth day. *Necropsy.*—Resected bowel was adherent by one thin band to parietes; no bending of gut. Line of union was perfect. Lumen was undiminished. One cone-suture was still adherent.
33	Oct. 30th, 1895.	Healthy female.	Median	6 in.	Cones	Same	Not used	17 min.	Pregnant at time of operation. Condition only discovered after abdomen was opened. On Dec. 20th the bitch gave birth to a litter of five pups. Excellent recovery.
34	Nov. 6th, 1895.	Small unhealthy male. Tapeworms.	Lateral	6 in.	Cones	Same	Not used	19 min.	Dog did very well. Killed on the seventh day. *Necropsy.*—Line of resection firmly united. The lumen was very slightly diminished.
35	Nov. 9th, 1895.	Healthy female.	Median	9 in.	Cones	Same	Not used	18 min.	Excellent recovery.
36	Nov. 14th, 1895.	Small emaciated male. Tapeworms.	Lateral	15 in.	Cones	Same	Not used	19 min.	Excellent recovery. Grew fat and big.
37	Nov. 20th, 1895.	Healthy male.	Lateral	4 in.	Cones	Same	Not used	22 min.	Kidney was also removed. Dog the same evening appeared comfortable and was walking about. Died the next day. *Necropsy.*—There was no peritonitis except at site of resection, which was covered by a layer of plastic lymph and was watertight. The renal pedicle was perfectly occluded.
38	Nov. 24th, 1895.	Healthy female.	Median	13 in.	Cones	Same	Not used	18 min.	Excellent recovery.
39	Nov. 27th, 1895.	Emaciated unhealthy female. Tapeworms.	Median	5 in.	Cones	Same	Not used	19 min.	Excellent recovery.
40	Nov. 30th, 1895.	Healthy male.	Lateral	14 in.	Cones	Same	Not used	17 min.	Excellent recovery.
41	Dec. 4th, 1895.	Healthy male.	Lateral	12 in.	Cones	Same	Not used	18 min.	Excellent recovery
42	Dec. 5th, 1895.	Healthy male.	Lateral	9 in.	Cones	Same	Not used	19 min.	Excellent recovery.
43	Dec. 8th, 1895.	Large female.	Median	10 in.	Cones	Same	Not used	18 min.	Excellent recovery. On May 5th, 1896, the bitch gave birth to a litter of five pups.

TABULAR STATEMENT OF CASES—*Continued.*

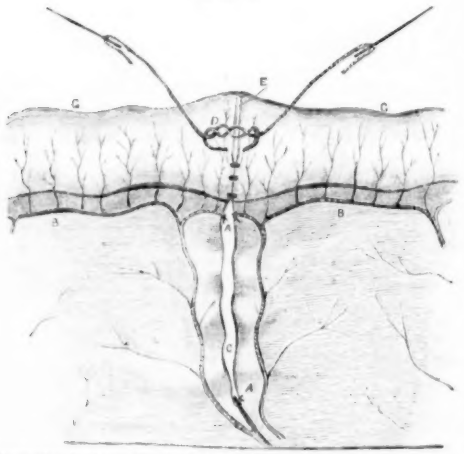
Case.	Date of operation.	Sex and condition.	Incision.	Length of intestine excised.	Form of disc, cone, &c.	Suture used to unite bowel.	Graft.	Time taken by operation from skin incision to last parietal suture.	Remarks.
44	Dec. 12th, 1895.	Small male. Tapeworms.	Lateral	8 in.	Cones	Same	Not used	18 min.	Excellent recovery.
45	Dec. 17th, 1895.	Emaciated female. Tapeworms.	Median	10 in.	Cones	Same	Not used	18 min.	Excellent recovery.
46	Dec. 28th, 1895.	Healthy male.	Lateral	16 in.	Cones	Same	Not used	19 min.	Dog did very well. Killed on Jan. 17th, 1896 (23rd day). *Necropsy.*—Line of resection loosely adherent to one other coil, this and the two mesenteric branches being close together and parallel were the only indications as to the exact line of union. On further searching at the mesenteric attachment a short length of suture was found. Lumen was undiminished.
47	Dec. 30th, 1895.	Medium sized female Tapeworms.	Median	4 in.	Cones	Same	Not used	17 min.	Excellent recovery.
48	Jan. 3rd, 1896.	Small male.	Lateral	6 in.	Cones	Same	Not used	18 min.	Excellent recovery.
49	Jan. 14th, 1896.	Healthy male.	Lateral	9 in.	Cones	Same	Not used	17 min.	Excellent recovery.
50	Jan. 16th, 1896.	Small female. Tapeworms.	Median	4 in.	Cones	Same	Not used	19 min.	Died on the 8th day. *Necropsy.*—Centre of abdominal wound communicated with peritoneal cavity. General peritonitis. No sign of extravasation. Union of gut quite sound.
51	Jan. 20th, 1896.	Healthy female.	Median	12 in.	Cones	Same	Not used	18 min.	Excellent recovery.
52	Jan. 27th, 1896.	Emaciated male.	Lateral	3 in.	Cones	Same	Not used	19 min.	Excellent recovery.
53	Feb. 2nd, 1896.	Male.	Lateral	8 in.	Cones	Same	Not used	17 min.	Excellent recovery.
54	Feb. 6th, 1896.	Emaciated female. Tapeworms.	Median	6 in.	Cones	Same	Not used	20 min.	Delayed by artificial respiration, and cone sutures becoming entangled. Excellent recovery.
55	Feb. 14th, 1896.	Male.	Lateral	9 in.	Cones	Same	Not used	19 min.	Excellent recovery.
56	Feb. 16th, 1896.	Small male.	Lateral	3 in.	Cones	Same	Not used	16 min.	Excellent recovery.
57	Feb. 25th, 1896.	Healthy female.	Median	13 in.	Cones	Same	Not used	18 min.	Excellent recovery.
58	Feb. 28th, 1896.	Emaciated female.	Median	9 in.	Cones	Same	Not used	17 min.	Excellent recovery.
59	March 4th, 1896.	Healthy female.	Median	4 in.	Cones	Same	Not used	16 min.	Excellent recovery.

DR. CONOLLY'S CASES (OPERATED UPON DURING NOVEMBER AND DECEMBER, 1895).

Case.	Sex and condition.	Incision.	Length of intestine excised.	Cones.	Suture used to unite bowel.	Graft.	Remarks.
1	Large female.	Med'an	3 in.	Cones	Button-hole	Not used	Dog took chloroform badly and operation was interrupted twice. After the gut had been sutured all round it was discovered that one end had been rotated through a whole circle, a very severe kink being the result. It was decided to leave the necessary resection for a few days, and so no graft was used. On the fourth day Dr. Conolly reopened the abdomen and excised 6 in. of intestine, including the old line of union, which was firmly united. It died next day. The line of union was water-tight.
	—	—	6 in.	"	"	Graft	
2	Large healthy male.	Lateral	5 in.	Cones	Button-hole	Graft	Dog did very well. Killed three weeks after operation. *Necropsy.*—Graft was adherent to two other coils, and also to same coil about 2 in. from line of union; its contraction had caused an acute bend of the gut and partial occlusion. There were no symptoms of obstruction during life.
3	Small unhealthy male. Tapeworms.	Lateral	3 in.	Cones	Cross knotted	Graft	Dog did well. Killed on the fifth day. Graft, which was adherent to two other coils, was carefully removed; gut firmly united; cones not quite absorbed.
	Medium size male.	Lateral	12 in.	Cones	Cross knotted	Not used	Excellent recovery.
5	Small healthy female Tapeworms.	Median	4 in.	Cones	Crossed double-turned	Not used	Excellent recovery. On May 4th, 1896, the bitch gave birth to a litter of six pups.
6	Healthy female.	Median	2 in.	Cones	Same as No. 5	Not used	Excellent recovery.
7	Medium size male.	Lateral	3 in.	Cones	Same	Not used	Excellent recovery
8	Small emaciated female Tapeworms.	Median	14 in.	Cones	Same	Not used	Excellent recovery. Dog grew big and fat.

"double-turned" suture previously described was commenced on the under surface of the bowel about one-third of an inch from the mesenteric attachment; especial care was paid to the first four stitches (which take in this attachment) to ensure that the knot of the "cone-sutures" was buried beneath the line of the continuous suture. To effect this the needles were here inserted a little farther from the cut margins. The assistant, holding the bowel at the apex of each "cone" between the thumb and first two fingers of each hand, kept the cut ends of the gut in view (otherwise excessive inversion occurred during the suturing) and gradually rotated the bowel back to its original position as the suturing proceeded. When the opposite "cone-suture" knot was reached the same care to conceal it was bestowed as upon the former one. This especial care to conceal or bury the "cone-suture" knots beneath the continuous suture is imperative, as three of the cases (Cases 6, 15, and 26) died from general peritonitis due to extravasation along the "cone suture," but this was prevented in the subsequent cases (Cases 27 and 49) by this extra care being bestowed upon the knots. As each "double turn" (see Fig. 3) of the continuous suture was in

FIG. 3.



Operation half completed (dog's bowel). A, A, Arteries ligatured. B, B, Arterial loops. C, Gap in mesentery. D, Double turn. E, Cut margins of gut. G, G, Gut.

process of being tightened the assistant, with the closed blades of a pair of scissors applied on the flat, or other instrument, inverted the margins of the bowel and kept them so until the double turn was drawn sufficiently tight to invert them permanently. When the gut had been sutured all round the two ends of the suture were tied with a reef knot; the bowel was then carefully cleansed and the line of resection inspected to ensure that the edges were everywhere inverted. If at any point this was not so a stitch or two with a spare "double-needled" suture was taken. The margins being everywhere inverted the gap in the mesentery was closed with one end of the original "double-turned" suture by an overhand continuous stitch. With the other end of the suture, or if preferred an extra suture in a curved needle (the latter is more easily passed), a stitch was taken through both margins of the mesentery close to the bowel; when this was tied it closed and also brought together the two triangular spaces at the mesenteric attachment; but care must be taken in passing this stitch not to wound the arterial loops running in the apices of these spaces, as on them depends the vitality of the ends of the gut. (*Vide* Case 4.) The gut was then bathed in hot water and returned; the peritoneal and the three muscular coats of the abdominal wall were severally united with an overhand continuous suture, and, lastly, the subcutaneous tissue was sutured over all. As these dogs could not be kept quiet and primary union was almost impossible to attain the skin wound was not closed, and all dressings were abandoned after the first nine or ten cases; the wound was kept clean by the dog licking it, and it healed very rapidly. The suture in the subcutaneous tissue was removed about the fourth day.

After-treatment.—The diet of the dogs was confined as far as possible to milk for the first two days, the dogs being allowed as much as they would drink; for the next four days minced meat and boiled rice were substituted, and they were then allowed to eat anything; but as the dogs were unfettered many of them obtained solid food surreptitiously in the first few days. A few of the earlier cases were given a quarter of a grain of morphia subcutaneously immediately after the operation; this was advantageously discontinued.

Remarks.—The number of dogs upon which I personally performed resection was 59. These may be considered under three headings:—

I. Those cases where "discs" were used. The number operated upon was 6 (Cases 1 to 6), with 3 deaths. 1. Case 1, on the fourth day. At the necropsy the line of union was perfect, and there was no apparent cause of death. 2. Case 4, on the fourth day. At the necropsy gangrene of one margin was found. At the operation the arterial loop at the mesenteric attachment was transfixed and ligatured and the discs were slightly too large. The gangrene was on the same side as the ligatured artery. 3. Case 6, on the fourth day. At the necropsy peritonitis and extravasation along the "disc-suture" and through the graft were found. This gives a mortality of 50 per cent., but the first death might be eliminated as the dog had recovered from shock, the gut was perfectly united, no peritonitis was present, and there was reason to believe that the dog was poisoned.

II. Those cases where "cylinders" or "cones" were used, but various kinds of sutures experimented with. The number operated upon was 20 (Cases 7 to 26 inclusive), with 6 deaths. 1. Case 7, eight hours after operation. Death was caused by shock or the effect of half a grain of morphia injected unknown to me. The line of resection was watertight. 2. Case 13, on the third day. At the necropsy gangrene of a small portion of one margin due to the underpinning of a transfixed arterial twig was found. 3. Case 15, on the fifth day. At the necropsy peritonitis and extravasation along the cone suture were found. 4 and 5. Cases 22 and 23, on the third day. At the necropsies peritonitis and extravasation through a small opening in the line of resection were found. These two cases were those in which the unknotted crossed sutures were used. 6. Case 26, on the fourth day. At the necropsy peritonitis and extravasation along the cone suture were found. The mortality in this series was 30 per cent.

III. Those cases operated upon in the manner described—i.e., with cones and the suture finally adopted. The number operated upon was thirty-two[3] (27 to the end) with 2 deaths. 1. Case 37, twenty-four hours after operation; in this case the kidney was also removed. The dog was walking about the evening of the operation and seemed comfortable. At the necropsy the line of resection was found to be watertight. 2. Case 50, on the eighth day. At the necropsy the abdominal wound was found to communicate with the peritoneal cavity. There was general peritonitis; the union of the gut was perfect. This gives a mortality of 6·2 per cent., but Case 50 should be eliminated, as where primary union can be depended upon (in the case of a human being) no such result would happen; and in a total of 105 dogs, of which the above 59 form part, all of which had to be allowed to run about freely without any dressings, this was the only case in which leakage backwards from the abdominal wound occurred. If this case therefore be excluded the mortality would be 3·1 per cent. But in speaking of this mortality of 3·1 per cent. it should be remembered that two of the cases (Cases 29 and 34) were killed on the seventh and ninth days respectively in order to see the condition of the gut operated upon and perhaps before all danger had passed, but from the condition found—the gut perfectly united in both cases—complete recovery seemed to be assured. It must also be borne in mind that the dogs were not suffering from obstruction and that in cases of obstruction the degree of success will depend largely upon the state of the patient at the time of operation. But I believe that I should be correct in stating that if conditions were similar better results would be obtained in man, as the operation is easier, the gut more readily manipulated, the peritoneal coat not so fragile, and—a most important point—

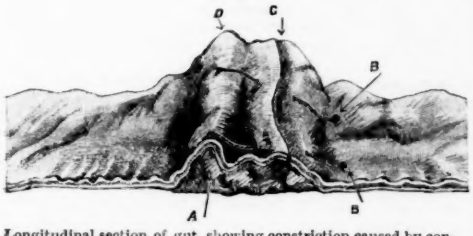
[3] Case 31 is omitted from the following considerations, as the dog disemboweled himself on the fifth day, and such a result cannot be attributed to the operation.

the patient can subsequently be kept absolutely at rest on a suitable diet and rapid union ensured.

It may be mentioned here that Dr. Waldo Conolly, of Melbourne, who was at Hyderabad studying Lawrie's method of chloroform administration, assisted me in several of these experiments. He performed resection on four dogs by Senn's method; each operation lasted a little over one hour, and all four died from extravasation. He subsequently operated upon eight dogs by my method. In the first operation, after the bowel had been sutured all round, it was seen that one end of the gut had been rotated through a whole circle, a very severe kink being the result. As the dog had been under operation forty-five minutes, and to have resected this kink would, at the same rate, have taken another forty-five minutes, it was decided to postpone the further operation. On the fourth day Dr. Conolly reopened the abdomen and excised six inches of gut, the old line of resection which was firmly united being in the centre. The dog died next day from shock. The remaining seven cases all made uninterrupted recoveries, and the mortality, which would have been *nil* but for this unfortunate misadventure, is, therefore, 12·5 per cent. for Dr. Conolly's series.

As previously stated, a graft was applied in sixteen cases, but afterwards omitted. In every case where it was used and the dog subsequently died or was killed (Cases 1, 2, 3, 4, 7, 8, 9, 12, 13, and 15 of my series, and Cases 2 and 3 of Dr. Conolly's) the necropsy showed that: 1. In cases examined shortly after operation the graft, which had consisted of a thin single layer of omentum, had become greatly thickened by inflammatory exudation and formed a band a quarter of an inch thick round the bowel. In cases examined at a later period this band had become converted into a thick fibrous ring. 2. The graft had formed very firm and extensive adhesions with other coils of intestine, matting them together in such a way as to render their separation difficult and in one of my cases (Case 3) and one of Dr. Conolly's (Case 2) impracticable. 3. Contraction of the graft circularly had resulted in a very considerable narrowing of the lumen of the bowel (see Fig. 4). 4. Contraction of the graft longitudinally had caused large

FIG. 4.



Longitudinal section of gut, showing constriction caused by contraction of graft. A, Graft greatly thickened. B, Cone-sutures on mucous surface. C, Line of union (this is drawn much too distinct, in the specimen it was only just visible). D, Annular fold of wall due to contraction of graft.

annular folds of the wall of the bowel, which still further reduced the lumen. 5. In three cases partial, and in one complete, occlusion by acute bending of the gut had been caused. That the omental graft may be a safeguard against extravasation is shown by Case 12; but in Case 6, in which the dog died on the fourth day from peritonitis due to extravasation along a "disc suture" and then under and through the graft, also shows that but little reliance can be placed upon it and its disadvantages more than outweigh this one advantage. There is but little doubt that had these dogs been allowed to live some, at least, of them would have shown signs of obstruction later, and where a graft has been employed and obstruction subsequently supervenes relief will, in the great majority of cases, be impossible in consequence of the number of other coils of intestine involved by the graft. Case 3 illustrates this almost hopeless condition very well; the dog had made an uninterrupted recovery and remained in good health for two months after the operation, but then began to lose its appetite, to vomit after food, and to lose weight. The abdomen was reopened with a view to resecting the strictured gut, but it was found that five coils of intestine were matted together by such dense adhesions and in such a way as to render their separation impossible. If the whole had been removed the dog would have been left practically intestineless, so an overdose of chloroform was given. Even after death so dense were the adhesions and so changed and twisted was the gut that the separation of the coils was most difficult; contraction of the graft had reduced the lumen by more than one-half, a large annular fold of the wall had been caused by the longitudinal contraction, and occlusion of the gut from acute bending by the adhesions was also present. A lateral anastomosis might have been performed in this case, but I opined that the dog would die from marasmus as very little intestine could be left free, and so to save suffering the dog was killed. In man, with his very much longer intestine, this operation would in these cases present the best hope.

In addition to these grave objections to the use of the graft there are also: (1) the constant danger of internal strangulation from the presence of these adhesions between the graft and surrounding parts; (2) the acute paroxysmal pain; or (3) the chronic discomfort, ending in a more or less complete disability, from dragging on the adhesions. It will be seen in the tabular statement that two dogs in which the graft was used (Cases 5 and 11) were apparently in good health eleven and seven months respectively after operation. In these cases the most that can be said is that the graft did not produce obstruction, but it cannot be said, of course, that the dogs did not suffer inconvenience or pain. But even granting that in some cases the graft may prevent extravasation and that in a few no obvious ill results follow, its employment is attended by so many and such serious objections that its use is to be condemned and reliance placed entirely upon a careful suturing.

The operation as described is rapid, occupying less than twenty minutes from the skin incision to the last parietal suture. Only two sutures penetrate all the layers of the bowel, and these are subsequently buried and shut off from the peritoneal cavity. There is only one wound of the bowel, and this wound is supported and protected during its union by the cones until their absortion. The "cones" are most easily inserted in consequence of their shape; their calibre is large, thus allowing an immediate and free channel for the passage of fæces past the line of resection without undue strain on the gut; they are dissolved in from three to four days and can be readily and rapidly made anywhere. Of the various vegetables tried fresh carrots were found to be the best as they were stiffer and firmer—if made of some other suitable material the cones could be kept in stock of all sizes; they also afford a firm convex background for the suturing, and the portion of the gut that has to be sutured being raised above the rest permits of this being done more easily than can be the case when the suturing takes place transversely to the long axis at the bottom of a depression, as in Mayo Robson's operation. The suture is a very rapid one; the fact that the needles are inserted parallel to the blood-vessels greatly diminishes the risk of these being transfixed and also prevents interference with the flow of blood through them; it allows of a firm hold being taken on the bowel, and the stitches do not cut through nearly so readily as when made longitudinally; the mucous coat is not involved and risk of extravasation along the suture is thus avoided. Each loop must be drawn only sufficiently tight to keep the edges inverted, if drawn too tight pressure-atrophy occurs and union is delayed as is the case with any form of intestinal suture. With an able assistant the suturing of the bowel can be completed in less than four minutes. Whilst I believe this suture to be the best for all transverse wounds of the bowel it would not be so applicable for longitudinal wounds. At the time of the operation the lumen of the bowel is only slightly diminished, and no contraction of the scar takes place subsequently. The tendency that exists for the mucous coat to extrude is prevented reaching a dangerous degree by the continuous suture, and the slight degree that does take place is beneficial as it allows of end-to-end union of this coat. The operation as described has been for an end-to-end apposition, but it is as applicable for an end-to-side union if one cone and a perforated disc of the same diameter as the base of the cone are used; in every other respect the operation would be the same. For a side-to-side apposition two perforated discs would be used. This would be a modification of Senn's method, the differences being the shape of the discs, two disc-sutures instead of four, and a buried continuous suture instead of an omental graft.

Of all the dogs operated upon 39 per cent. had tapeworms, and freeing the ends of the gut from these delayed the operation somewhat. These worms are also a source of danger in

the operation, as 66 per cent. of the deaths occurred in dogs afflicted with tapeworms. The three dogs that died from extravasation along the cone or disc-sutures all had tapeworms, and in Case 12 (in which the dog was killed and a few drops of pus were found under the graft) these worms were again present. The reason is, I believe, that in these cases there was a thin greenish-yellow fluid bathing the worms; this fluid was only seen when worms were present, and extravasation of this occurred before any plastic lymph was poured out over the line of union.

In carrying out these experiments there was no selection of the dogs; they were operated upon as they were brought to me, some strong and healthy, others unhealthy, mangy, and emaciated; thus the general conditions, apart from the consideration of obstruction, were similar to those which would obtain in man. Those conditions could have been more closely approximated by obstructing the bowel by a previous operation or wounding it by a shot or stab, but I did not feel justified in resorting to a course which would involve much suffering without affording a promise of much further information. In every case the dog was kept well under the influence of chloroform during the operation and all possible care was taken before and after operation to avoid causing pain. It may be interesting to mention that so little did the dogs appear to suffer that in a number of cases they fought the day after being operated upon, either for food or a bitch on heat. Two of the bitches were pregnant at the time of operation (this condition not being discovered until after the abdomen was opened), three became pregnant subsequently to the operation, all five brought forth large, healthy litters, and in no case did any sign of obstruction appear from traction on the bowel due to adhesions. The dogs were all pariahs, running wild in the native city, homeless, mostly starved, and to whom a regular meal was unknown until they were brought to my bungalow. They rapidly grew fat and friendly, and although allowed perfect freedom only two deserted after being operated upon. I desire to express my grateful acknowledgments to the Medical Department of H.H. the Nizam's Government and to Surgeon-Lieutenant-Colonel Lawrie, Residency Surgeon and Principal of the Medical School, for the facilities and resources they so readily placed at my disposal for these and other investigations.

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A METHOD OF PRODUCING IMMUNITY AGAINST TUBERCULOUS INFECTION.[1]

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PREVIOUSLY to undertaking any original investigations in the treatment or prevention of tuberculosis it was necessary to make a number of experiments so as fully to understand the course, terminations, and post-mortem appearances of tuberculous disease when following its usual course after the artificial introduction of tubercle bacilli. To study these phenomena a number of rabbits and guinea-pigs were inoculated by way of the peritoneal cavity, the anterior chamber of the eye, the veins, and the subcutaneous tissues, with the result that the animals died from tuberculosis after the lapse of varying periods—the interval depending on the dose and its mode of administration. During life the chief evidences of the disease were emaciation and fever, the former steadily increasing until death. On post-mortem examination numerous nodules were found in the internal organs, and these nodules when examined under the microscope were found to have the typical structure recognised as that of tubercle.

In addition to the infection of the internal organs those animals which were inoculated in the peritoneal cavity showed a tuberculous peritonitis, and those inoculated in the anterior chamber of the eye a tuberculous pan-ophthalmitis. In these experiments the bacillus of mammalian tubercle was employed and all the inoculations made into mammals were uniformly successful in inducing the disease, but on trying to produce tuberculosis in birds by injections of the same organism the results were invariably negative. In six fowls I injected into the veins doses varying from 1 c.c. to 10 c.c. of a very opaque (almost milky looking) watery suspension of virulent mammalian tubercle, but the birds remained healthy and strong. After periods varying from ten weeks to five months they were killed, when their organs were found to be free from tubercle even after careful microscopic examination. Yet repeated outbreaks of tuberculosis amongst birds are on record, and in these instances the disease has spread very rapidly amongst the birds and could only be eradicated by killing all the infected fowls and thoroughly washing the aviaries with antiseptics. In these cases the only methods of infection could be by inhalation and swallowing, and in both these ways the number of bacilli taken at any one time would be comparatively small, and they would be brought into contact with healthy epithelium either in the lungs or intestine. Yet these few bacilli were able to overcome the resistance offered by this epithelium and gain a nidus in the body, ultimately leading to the death of the infected birds. On the other hand, in the experimental cases above noted, countless numbers of bacilli were injected directly into the blood stream and had therefore no primary resistance to overcome in the form of epithelium, and yet they disappeared from the body of the inoculated animals without leaving any visible trace.

Still, there might be something in the external conditions of these birds which are infected accidentally whilst running about that makes them more liable to infection than those kept in confinement, though the opposite usually holds. To investigate this point five fowls were kept under the same conditions; of these, three had injected 5 c.c. of a watery suspension of virulent mammalian tubercle into the peritoneal cavity, another had the same dose of virulent fowl tubercle introduced into the peritoneal cavity, whilst the fifth was fed on two occasions with food which had 1 c.c. of the same watery suspension of virulent fowl tubercle mixed with it. At the expiration of ten weeks the birds were killed, when those which had been injected with virulent mammalian tubercle bacilli were found free from tuberculosis, whilst the bird which had been inoculated with the virulent fowl tubercle showed numerous tubercles in the viscera, and the one which had been fed with tuberculous food showed tuberculous nodules of the intestine and a tuberculous ulcer of the gizzard.

The question next arises, Are both these varieties pathogenic towards man? As regards the mammalian it is generally recognised that it is virulent to man. That he is susceptible to the bacillus of fowl tubercle is fairly conclusively shown by the following case.

Some time ago when on a visit to the country I was asked by a man who kept poultry if I could give any reason why his birds were dying off, as, so far as he could discover, there was no evident cause. On investigation I found that for a considerable time past occasionally a fowl would become emaciated and weak and ultimately die. As he was poor, and this meant to him a heavy financial loss, he latterly, when he noticed any of his stock ill, killed them and ate their carcasses after cooking by roasting. On killing and examining one of the diseased birds I had no hesitation in pronouncing the disease to be tuberculosis, and advised him to kill his stock and disinfect their houses and feeding dishes thoroughly, and on no account to eat any of the birds. On seeing his family a few months later his wife and daughter were suffering from tuberculous disease, the wife of the intestines and the daughter of the lungs, and from this they both ultimately died. In these cases the infection was derived doubtless from the poultry, either indirectly by inhaling or swallowing the germs as they were blown about in the poultry-house, or more directly by eating the carcasses of the birds, which may have been insufficiently cooked. The man himself I lost sight of. If the ejecta of these patients had been eaten by healthy poultry, the bacilli having been primarily derived from birds would doubtless have infected them, and so the disease would have spread; on the other hand, the experiments above recorded show that the sputum voided from a patient the host of mammalian tubercle would be swallowed with impunity by fowls.

Now, if there are two varieties of tubercle, and man is susceptible to both, a culture obtained from a patient suffering from fowl tubercle should show the characteristic appearances of that organism, cultures of fowl tubercle growing more rapidly and being moister than those of mammalian tubercle.

[1] This article is an abstract of the author's Weber-Parkes Essay which received the second award from the Royal College of Physicians of London.

This was actually a strong point in support of the contention that fowl tubercle is only a modification of mammalian tubercle, as hitherto all artificial cultures derived primarily from man have been described as being similar in appearance. Recently I obtained further evidence in favour of a distinction between these bacilli. On opening an abscess and collecting some of the pus to ascertain if it contained tubercle bacilli careful microscopic examination failed to reveal the presence of any germs. A quantity was then injected into the peritoneal cavity of a rabbit. At the end of six weeks, when the animal was killed, tubercles were found scattered over the peritoneum. Some of these were removed with strict aseptic precautions and planted on the surface of glycerine-glucose-agar. No growth was visible for about a week, when a moist white ring appeared spreading out from the implanted nodules. At first I thought I was dealing with a contamination, but I was struck by the similarity of the growth in all the tubes, and on examining the growth more carefully it was found to have all the appearances, both macroscopic and microscopic, of fowl tubercle. I regret that the investigation was not carried further by inoculating birds from the cultures; still, the appearances were nothing like those given by cultures of mammalian tubercle. Only in this one case have I obtained this growth from man; but tuberculosis amongst birds is comparatively rare, and I believe the infection of man with this variety is rarer, otherwise the peculiarities of its cultures would have been frequently observed.

To ascertain if the one variety had any action on the growth of the other variety the following experiments were performed. A number of rabbits had 1 c.c. of a sterilised watery suspension of fowl tubercle bacilli injected into the auricular vein, the bacilli having been killed by one and a half hours' exposure to steam at 100° C. These injections were followed by fever and emaciation, which soon disappeared. 1. One month later ½ c.c. of a very opaque suspension of virulent mammalian tubercle was injected into the peritoneal cavity of several of these animals. To all appearance they remained well, and when killed four and a half months afterwards the only lesion observed was the presence of a number of small pedunculated nodules about the size of lentils adhering to the edge of the liver and the surface of the parietal peritoneum. In no instance did these nodules exceed ten in number. On section they were found to consist of a dense fibrous capsule with calcareous contents embedded in which were a few tubercle bacilli. 2. Others had ½ c.c. of the same suspension of virulent bacilli injected into the subcutaneous tissues. When killed four months later there was a small focus of caseation at the seat of injection, but neither the lymphatic glands nor viscera were infected. 3. Into the auricular vein of others ½ c.c. of the suspension of bacilli was injected. When killed at the end of three months and their viscera submitted to microscopical examination some of the organs taken from a few of the animals presented a few points of irritation as shown by a round-celled infiltration but without any trace of giant cells or caseation; in the remainder of the animals even these points of irritation were absent. During this experiment some of the animals gained as much as half a pound in weight. 4. An injection of 1 c.m. of the suspension of virulent bacilli into the anterior chamber of the eye of another series of rabbits was followed by a tuberculous iritis, but the tubercles soon commenced to diminish in size, so that at the end of five weeks they had completely disappeared in some cases, and almost so in others. On microscopical examination of the latter the nodules were found to consist principally of calcareous salts. 5. One rabbit had all the above injections introduced, and when killed five months after the introduction of the first it was found free from general tuberculosis. This animal gained one pound in weight during the experiment. In the above experiments the effect of introducing the bacterio-proteids of fowl tubercle into rabbits was such as to modify the fluids or tissues of the animals in such a manner that subsequent injections of virulent mammalian tubercle even in large doses were prevented from becoming disseminated throughout the body, but remained localised to the seat of primary inoculation. Further, if the bacilli were in a state of fine suspension and distributed over a large area, as follows an intravenous injection, the tissues were able to destroy them, and the bacterio-proteids thus set free produced the small foci of irritation observed in the viscera. As the proteids were removed the inflammatory points disappeared. When the bacilli were in a coarser state of suspension these injections gave rise to a caseous mass which ultimately became encapsuled and impregnated with calcareous salts, embedded in which one could find tubercle bacilli—the remains of those injected. In other words, injections of virulent mammalian tubercle bacilli into these animals behaved in the same manner as dead tubercle bacilli when these are injected into the same parts.

By injecting the sterilised fowl tubercle directly into the blood stream, as a means to prevent the extension of tuberculous infection, one very obvious disadvantage presents itself—namely, the danger of some of the dead bacilli being deposited in some part of vital importance and setting up an inflammation which might have serious results. This I found actually did occur in several instances where the injections were followed by paraplegia, oscillations of the head, &c. On the other hand, subcutaneous injections produced a caseous mass which on being discharged carried with it a large number of the bacilli which had been introduced, consequently the full advantage of the injections was not obtained. ..... On taking into consideration the immunity shown by fowls against infection by mammalian tubercle, I proceeded to ascertain the effect of their serum when modified by the presence, or action of, the bacterio-proteids of fowl tubercle. Accordingly sterilised suspensions of fowl tubercle were injected into the peritoneal cavity of fowls. The injections were commenced by giving 10 c.c. of a sterilised watery suspension of the bacilli, and at each subsequent injection, these being repeated at intervals of three weeks, the quantity was increased at first by 5 c.c. and latterly by 10 c.c., so that the quantity introduced on the sixth injection was 50 c.c. and the total 165 c.c. After the expiration of the next three weeks the injection of 50 c.c. of the suspension was repeated, and continued to be so every third week. Under this treatment the birds, which during the time occupied by the first three or four injections were emaciated and anæmic, came gradually to be able to withstand the action of the later injections with no apparent detriment to health. I next endeavoured to find if the serum of the fowls so treated had any effect on the growth of tubercle bacilli, both fowl and mammalian. To do this I abstracted some blood from the fowls, having allowed at least a week to intervene between the last injection of sterilised fowl tubercle bacilli and the venesection, and not taking any blood until the sixth injection had been given. Having allowed the serum to separate a quantity of this was drawn into sterilised test-tubes. A number of these were then inoculated with virulent fowl tubercle, others with virulent mammalian tubercle, and then placed in the incubator. After some time there was a distinct growth in the tubes inoculated with the fowl tubercle, but no apparent increase in the number of bacilli in those tubes which had been inoculated with mammalian tubercle bacilli, even although kept for three weeks in the incubator. But here one must be guarded against attributing this want of growth entirely as the result of the previous treatment of the fowls from which the serum was taken, because the fluid serum itself has the power of destroying, within certain limits, any germs which may be introduced into it, and it is possible that the absence of growth was due to this bactericidal property.

Proceeding to try the effect of this serum on healthy rabbits and guinea-pigs I injected 3 c.c. into the subcutaneous tissues of these animals. This was followed in a few hours by a marked rise of temperature, the rise in some cases reaching 3° F. Twenty-four hours afterwards there was a thickening at the seat of injection, and extending for some distance round this point. The injection was repeated once a week until 15 c.c. of serum had been introduced altogether. During this period the animals lost weight, and this emaciation continued to progress for four or five weeks after the cessation of the injections. This loss of weight amounted in one case to 150 grammes, and in one instance, where a dose of 8 c.c. was given, the animal died shortly afterwards. Sections made from the swellings resulting from the injections of serum were found to consist almost entirely of round cells, epithelioid cells, and a few large multinucleated cells. At other points the sections showed small foci having all the appearances of caseation, whilst at others the cells were undergoing a degenerative change, as evidenced by their staining very faintly. Apart from the caseation the above appearances denote the presence of a chronic inflammation only, but the caseation and degeneration reveal the presence of some substance deleterious to the cells of the inoculated animal. That this deleterious property does not belong to the normal serum of fowls was

shown by injecting normal serum in similar doses into rabbits. These injections produced a very slight rise of temperature and very little swelling, but nothing similar to the degenerative changes above described.

In the foregoing experiments the caseation could not be due to the highly improbable event of any of the dead bacilli injected into the fowl having got into the circulation and escaping with the blood withdrawn, then reinjected with the serum into the rabbits and guinea-pigs, because it has been shown that isolated bacilli do not produce caseation. This result, therefore, must be due to something dissolved in the blood of the fowls, or else their serum is so modified that it is able to produce this change, and yet the birds themselves are to all appearances healthy. I now proceeded to try the effects of the serum on tuberculous animals. For this purpose a number of rabbits were inoculated by the anterior chamber of the eye with virulent mammalian tubercle bacilli. These injections were followed by intense iritis, the formation of yellowish spots on the iris, and slight opacity of the cornea. A fortnight later 2 c.c. of the prepared serum were injected subcutaneously, and this dose was repeated weekly for four weeks. At the end of this period the affected eyes were acutely inflamed, the iris in some cases looking like granulation tissue. After the injections ceased this condition of intense inflammation improved, and a month later the pupils were distinct and the redness had disappeared from the iris, scattered over which a few yellowish specks could be seen. For five or six weeks the eyes remained in this condition, there being no apparent increase in size or number of the yellowish specks situated on the iris. The injections of serum were then recommenced, the dose being 2 c.c., and repeated weekly for three weeks. As a result of this the nodules on the iris increased in size, but there was no development of any fresh foci. Six months from the injection of the mammalian tubercle into the eyes, the animals were killed. On examination the bodies were found to be well nourished, and, excepting the tubercles in the eyes, the animals were free from tuberculous infection.

The results of these injections show that the serum when injected into a tuberculous animal tends to limit the extension of tuberculosis to parts other than those primarily involved, as evidenced by the absence of any tuberculous disease in the internal organs. Even in parts where the disease has become established before the serum is introduced it has a pernicious influence, as in none of the infected eyes did the tubercles exceed seven in number, although 2 c.m. of an opaque watery suspension of virulent mammalian tubercle bacilli had been injected and six months elapsed between the primary inoculation and the death by killing of the animals. The intense inflammation in the eyes during the period of the first series of injections of the serum, followed by a period of quiescence of the tuberculosis after their cessation, and again the increase in the size of the tubercles during the second series of injections, leads one to the opinion that the serum when injected into an animal suffering from tuberculous disease aggravates the affection so long as the injections are continued; but when time has been given for this serum to influence the fluids of the body these fluids are able to a certain extent to prevent any further extension of the disease. If this be so then it would be possible to render susceptible animals immune to the action of the tubercle bacillus by injecting a quantity of this prepared serum and allowing some time to elapse before exposing the animals to tuberculous infection. Hence I endeavoured to make guinea-pigs and rabbits immune to the action of the mammalian tubercle bacillus. The animals had injected subcutaneously doses of 2 c.c. of the prepared serum, the dose being repeated every third day until five injections had been given and they had received a total of 10 c.c. of serum. These injections were followed by the usual rise of temperature, swellings, and emaciation, but after their administration had been stopped these symptoms gradually disappeared. One month from the date of the last injection of the serum virulent mammalian tubercle bacilli in watery suspension were injected into the anterior chamber of the eye of a number of rabbits. This injection gave rise to an acute iritis accompanied by opacity of the cornea. These symptoms continued for a few weeks and then gradually diminished, so that by the end of the sixth week they had completely disappeared and no trace of tubercle could be found in any part of the body on making a post-mortem examination. Two months later—that is, three months from the date of the last injection of serum—1 c.c. of an opaque watery suspension of virulent mammalian tubercle was injected into the peritoneal cavity of a number of guinea-pigs. After this injection the animals appeared to remain in their usual health and were all killed in from two to two and a half months after the introduction of the mammalian tubercle. During this period there was no emaciation, as shown by the absence of loss of weight. On post-mortem examination the only evidences of any injection of irritant matter having been made into the peritoneal cavity was in one case an adhesion of the liver to the diaphragm and in another the presence of three small nodules, about 0·5 mm. in diameter, in the edge of the omentum, which otherwise was normal. All the viscera were perfectly healthy and free from any trace of tubercle even on microscopical examination. Sections of the nodules above mentioned showed that they consisted of a dense, fibrous capsule enclosing amorphous matter, lime salts, and fat globules of various sizes. In none of the sections was there any evidence of an active process, and careful examination failed to reveal the presence of tubercle bacilli. The existence of these nodules may have had nothing to do with the injection of the tubercle bacilli; but from their structure it is highly probable that they were the result of the inoculation, though the bacilli had disappeared. Five months after the injection of the serum a number of the remaining animals had virulent mammalian tubercle injected into the subcutaneous tissues, whilst in others the same organism was introduced into the peritoneal cavity. The subcutaneous injections acted in the same manner as injections of dead bacilli into the same situations—that is to say, a caseous mass formed which was discharged without giving rise to any infection of lymphatic glands or viscera. The injections into the peritoneal cavity disappeared without leaving a trace.

How long this acquired immunity will last in animals it is impossible at present to say definitely, but the results of the last set of experiments recorded above show that it is effectual for at least five months. Having obtained the serum of fowls in such a condition that its injection into such susceptible animals as guinea-pigs and rabbits conferred immunity against the invasion of large numbers of mammalian tubercle in a virulent form I proceeded to try its effects when injected into a healthy man. With this object I injected 2 c.c. of the serum into my thigh. This soon gave rise to pain, which extended for some inches round the needle puncture. Eight hours afterwards the part was slightly swollen and the skin over it was distinctly red. This pain, redness, and swelling lasted for four days, and during this period the femoral glands became enlarged and painful. At the end of this time the above symptoms (with the exception of the enlargement of the glands) gradually disappeared; but two days later—that is, seven days after the injection—pain was felt in the thigh about four inches from the point of injection, the parts immediately surrounding this point being quite free from any tenderness. The skin over the painful part was inflamed. These symptoms continued for three days longer and then disappeared, and at the same time the enlarged femoral glands commenced to diminish in size. During this period the temperature never exceeded 99·4° F. Two weeks after the first injection 5 c.c. of serum were injected into the other thigh. This gave rise in two hours to severe pain at the seat of injection and extending for about three inches round this point. There was also slight swelling of the part. Nine hours after the injection the skin over the part was distinctly red. The temperature was 99·2° and the pulse was 100 per minute. Nine hours later the part was much swollen, the swelling being defined by a red, raised margin. The inflamed part was very tender to pressure. The temperature was 100° and the pulse was 104 per minute. Ten hours later—that is, thirty hours after the introduction of the serum—the skin was very red, the redness extending almost from the knee to the groin and nearly completely round the limb. The glands in the groin were enlarged and painful. The temperature was 100·2° and the pulse was 104 per minute. A few (four) hours later the temperature rose to 100·4°, and there were headache and profuse perspiration. These latter symptoms continued for about eight hours, when they disappeared and the temperature and pulse fell to normal. About the same time the blush over the thigh resolved except from the edges, but the skin was still very much thickened over the affected area. Three days after the injection the limb was almost well, there being only slight thickening round the point of injection. During the whole of this period the femoral glands remained enlarged though

painless, and this enlarged condition persisted for six weeks from the date of injection. From the degree of reaction which followed the second injection I believe that the increase from 2 c.c. to 5 c.c was too great, and that a more gradual rise in the quantity introduced would be followed by less disturbance.

In man we cannot push the experiment to the test of injecting into his body virulent mammalian tubercle bacilli after the injection of the serum, but we are justified in concluding that if such susceptible animals as guinea-pigs and rabbits are rendered immune by this method against the invasion of large doses of the virulent bacillus introduced into their bodies, man, who is much less susceptible, can in the same manner be rendered immune against the invasion of the few bacilli which may at any one time attack him. I believe this condition of immunity can be attained in man by commencing with an injection of 2 c.c. of the serum, and increasing each administration by 1 c.c. until its influence on the body is shown by a distinct rise of temperature. At least a week should intervene between each injection.

The length of time this immunity so acquired will last can only be definitely ascertained by observations in a large number of cases and extending over a number of years; but even if the immunity should be found to diminish or disappear after the lapse of a number of years this does not reduce the value of the serum as a prophylactic, because the injections can be repeated at stated intervals and the immunity re-established. So far as my observations go I am unable to claim any curative effects from the use of the serum in patients suffering from tuberculous disease, but I hold, and that most emphatically, that when injected into susceptible bodies it confers on these an immunity against the invasion of the bacillus of mammalian tubercle. Especially do I recommend these injections to be given to persons who have a tuberculous tendency and to those who have a history of tuberculous disease amongst their relatives. By this means it is possible to diminish, if not altogether to eradicate, tuberculous affections from the race, and as such do I venture to bring it before the notice of the profession.

Glasgow.

TWO CASES OF PERFORATED GASTRIC ULCER TREATED BY OPERATION.[1]

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CASE 1.—The patient, a girl aged sixteen years, was seen in consultation with Dr. Hunter on Nov. 26th, 1895, and the case was diagnosed as one of perforated gastric ulcer. As her surroundings were such as to prevent operation at home I advised her removal to the General Hospital, and she was admitted at 2.30 P.M., about an hour after my visit. The history obtained was as follows. She had for some years been rather anæmic. For three weeks she had been troubled with symptoms of indigestion, for which she had taken some medicine, but which had not been severe enough to induce her to seek medical aid. Her appetite had been extremely good; she always felt hungry and ready to eat anything. In fact, it had for some time been abnormal. The actual attack occurred at 6.30 P.M. on Nov. 25th, the day before I saw her, about half an hour after tea. At this meal she had eaten a small pork pie, some fried bacon, and several helpings of bread and butter and marmalade, and had drunk two cups of tea. She was seized with intense pain in the abdomen above the navel, which doubled her up and which became so severe that she fainted. With difficulty she subsequently got to bed, and passed a sleepless night in great suffering, trying various remedies to relieve the pain. Thirst seemed to have troubled her greatly. During the night she told us that she drank two pints of milk, ten glasses of water, and two syphons of soda water, and in addition to this in the way of medicine, some "Mother Seigel's Syrup," a dose of salts, some ginger and "gripe mixture." In the morning Dr. Hunter was sent for, who at once recognised what had happened, and she reached the hospital as stated at 2.30 P.M. At this time she was suffering from shock and symptoms of commencing general peritonitis. There was great pain and tenderness all over the abdomen which was uniformly but slightly distended. The muscles were perfectly rigid and immobile during respiration. The liver dulness was diminished and the rest of the abdomen was hyper-resonant to gentle percussion. Her face was pale and the expression anxious; the pulse was 130, the respirations were 28, and the temperature was normal. There had been no vomiting. She was aware that the repeated draughts of fluid taken during the night had increased the pain. I operated at 3.30 P.M., an hour after her admission and twenty-one hours after the onset of the symptoms. An incision five inches long was made in the mid-line chiefly above the umbilicus. On opening the abdomen it was found to be full of an opaque fluid in which particles of food were floating. The bulk of this having been removed the stomach was then examined. Nothing was to be seen on that part of it within easy reach, but some thickish fluid containing small solid particles was observed coming down from high up under the left lobe of the liver, and following this up a perforation was found on the anterior surface of the stomach close to its cardiac end, which would admit the end of the finger. By lifting up the left lobe of the liver and the costal cartilages and drawing the stomach downwards and backwards the hole was brought sufficiently into view to enable the sutures to be passed. The material used was silk. After its closure the abdomen was flushed out with boiled water and sponges were finally used for the removal of any fluid or particles that remained. The abdominal incision was completely closed. The operation occupied one hour and five minutes from the commencement of the anæsthetic. I am much indebted to Dr. Sedgwick, one of our house surgeons, for the full and accurate record which he took of this case. The following is a *résumé* of the leading features of the subsequent history. For nine days after the operation the patient progressed without an unfavourable symptom of any kind. The temperature never rose above 100° F., and only reached this point on one occasion. The pulse rate dropped to between 80 and 90 and the abdominal symptoms disappeared. For the first four days the feeding was entirely rectal; after this peptonised milk in small but increasing doses was given by the mouth. The bowels acted regularly in response to simple enemata. The abdominal wound at the end of this period had practically healed and all the sutures had been removed. The patient was repeatedly asking for solid food, and, indeed, seemed convalescent. On the evening of the ninth day the temperature rose to 101°, and on visiting her next morning I found her not quite so well. The temperature had fallen to normal, but she complained of some malaise, headache, and pain in the right shoulder. The pulse-rate had risen to 100. Nothing fresh was discovered on examination of the abdomen. On Dec. 9th (two days later) the patient was in much the same state, the temperature rising to 101° at night and falling to normal in the morning. There was a little swelling at the upper part of the wound with redness round the track of one of the sutures, and a small quantity of pus was let out from a subcutaneous abscess, evidently in connexion with the stitch holes. On the 16th there was slight improvement following on this, but it was not maintained. The temperature during the week varied between 99° and 101·5°, and now suddenly jumped up to 104.° There had been no shivering and no evidence of peritonitis, local or general; the abdomen was flat, and palpation was painless. The only complaint was of headache and pain in the right shoulder over its convexity. These symptoms had persisted during the week. There was no swelling of the shoulder, and its movements were free and painless. In the last twenty-four hours a slight cough had developed and she vomited for the first time during her illness. Dr. Handford saw the patient at my request and carefully examined the liver region and the bases of both lungs, but he could detect nothing abnormal. On the 19th the temperature was still high and fluctuating between 101° and 103°, and in addition to the symptoms mentioned above complaint was now made of pain in the epigastrium. In the absence of Dr. Handford, Dr. W. B. Ransom kindly examined her chest for me, but was unable to discover any signs of fluid at the back of the chest or in front. The liver dulness was normal, and there was no visceral displacement. Thinking it probable that pus existed I decided to operate again, and did so on the following morning (the 20th). The patient was anæsthetised,

[1] A paper read at a meeting of the Nottingham Medico-Chirurgical Society on Feb. 3rd, 1897.

and an incision four inches long was made in the right linea semilunaris beginning at the costal margin. This exposed the anterior edge of the right lobe of the liver. Nothing was found here either between it and the diaphragm or on its under surface. There were two or three stones felt in the gall-bladder, which was otherwise normal. The incision was then closed and the original wound was opened up and the left lobe examined and also the stomach in the region of the ulcer. There was nothing wrong here, and it was evident that there had been no leakage. This wound was then closed. The shock was slight and soon recovered from. Three days after, on the 23rd, she was still complaining of persistent headache and right shoulder pain, and some pain all over the chest. Cough had now become a prominent symptom and was especially troublesome at night. There was a scanty frothy expectoration. Abdominal examination showed nothing fresh. The wounds were healing without suppuration. On the 30th her condition was distinctly worse. There was more cough and dyspnœa and some drowsiness. The temperature varied from 102° to 103° at night, being lower in the morning. She complained persistently of pain round the right shoulder and of headache. The respirations were 40 and the pulse was 124. The chest was again examined by Dr Handford, who found some moist sounds and slight crepitations over the upper part, and suggested the possibility of acute phthisis—two brothers had died from the disease,—but failed, as I had done, to detect the presence of fluid anywhere. The sutures were removed, the wounds having healed. There was no evidence of peritonitis. From this time until her death which occurred five days later, the pulmonary symptoms increased, the dyspnœa becoming more urgent; and on Jan. 2nd, 1896, distinct signs of double broncho-pneumonia were found, and oxygen was administered with strychnia, digitalis, and stimulants. Treatment proved to be of no avail, and she gradually sank and died on Jan. 4th, five weeks and four days after the date of perforation.

Necropsy.—On opening the abdomen there were no signs of peritonitis and no fluid in the peritoneal cavity. The stomach in the region of the ulcer was slightly adherent to the under surface of the left lobe of the liver. The adhesions were easily separated and the stomach was removed. The perforation was situated on the anterior wall close to its termination in the œsophagus. It was soundly healed. The gall-bladder was distended and contained five small calculi. No pus was found on examination of the liver *in situ*, but on removing it an abscess was found between the diaphragm and the posterior part of the right lobe, containing about six ounces of thick pus. The area of suppuration was limited by firm adhesions between the liver and diaphragm, which confined it almost to the angle between the diaphragm and the posterior border of the right lobe. On cutting into the liver a number of scattered abscesses were found, varying in size from a nut to that of a pea. Both lungs were affected with broncho-pneumonia. The other organs were healthy. There was no fluid in the pleuræ.

CASE 2.—A young woman, aged nineteen years, was admitted into the General Hospital on Dec. 16th, 1896, with the following history. She was working as a machinist, but had not been able to follow her occupation recently on account of ill health. For some time she had been suffering from dyspeptic symptoms, and was thought to have a gastric ulcer, for which she had been treated in the out-patient department. Her diet had been regulated and a mixture containing bismuth and soda ordered. She had vomited on many occasions after food, but there had been no hæmatemesis or melæna. She was anæmic. On the morning of Dec. 15th, the day before admission, she took a breakfast consisting of a pint of bread and milk at 8 A.M., having had the same for supper the night before. At 10.30 A.M., whilst washing her hands after cleaning the bedroom, the patient was taken suddenly with violent pain in the abdomen, which almost made her faint, and was with difficulty got upstairs, where vomiting occurred. She was seen by Dr. Blurton at 4.30 that afternoon and again the next morning, and was admitted into the hospital during the afternoon. Only a few teaspoonfuls of milk and soda water had been taken between the time of the attack and her admission. On examination the patient was found to be suffering from a moderate degree of shock, her expression was anxious, the pulse was 130, the respirations were 24, and the temperature was 99·4° F. Severe abdominal pain was complained of. The abdomen was rigid, scarcely moving on respiration, the left rectus being especially tense. There was marked tenderness above the umbilicus, but no distension. The liver dulness began at the sixth rib in the nipple line and extended downwards for 1½ in. The heart and lungs were normal. The patient being anæsthetised, I operated at 5.30 P.M., an hour after admission, and thirty-two hours after the onset of the symptoms. An incision was made in the mid-line extending downwards from just below the xiphoid cartilage. On opening the peritoneal cavity some odourless gas escaped, and the peritoneal covering of the transverse colon and the omentum which presented was found to be markedly injected. The small intestines were affected to a less degree. There was a small amount of turbid fluid, but nothing that could be recognised as stomach contents. At first no lesion could be discovered, but on enlarging the wound in an upward direction and drawing down the stomach a perforation was found on the anterior surface, close to the cardiac end, very much in the same situation as in the first case. It was quite small, of a size that would admit a probe, and surrounded by a layer of lymph. The stomach wall around it for ¼ in. was distinctly thinned and showed up the outline of the ulcer. It was excised, leaving an opening in the stomach 1½ in. long and ¾ in. broad. This was closed by means of Lembert's sutures, silk being the material used. The abdomen was then flushed out by pouring in boiled water, and finally the whole region between the diaphragm and the liver was douched and then wiped clean with a flat sponge. The abdomen was closed in the usual way, the operation lasting forty-five minutes. The subsequent progress of this case was very satisfactory. For three days the patient was fed by enemata and then began to take food by the mouth in gradually increasing quantities. She is now well.

Remarks.—I have related the first case in some detail as it affords a good example of sub-phrenic abscess and of the difficulties attending its diagnosis, especially as regards the localisation of the pus. The prognosis in cases of perforated gastric ulcer varies considerably according to the time which has elapsed between perforation and operation, the size of the opening, and the amount and kind of stomach contents extravasated. In respect of all these particulars this case must be regarded as an unfavourable one. The operation was done after a lapse of twenty-one hours. The hole was large, and an extraordinary quantity of stomach material (corresponding with the amount taken by the mouth) was found in all parts of the abdomen, samples of pork-pie, bacon, bread, marmalade, tea, and milk being visibly represented. I removed pieces of food from both loins and from Douglas's pouch, while the small intestines were floating in pints of turbid milky fluid. As far as this detail went the case could hardly have been worse; yet there was no subsequent peritonitis, and she would undoubtedly have recovered but for the localised suppuration under the diaphragm. No doubt the contents of the stomach are much less dangerous than are those of the intestine when they escape into the peritoneum. All went well with this patient until the ninth day, when unfavourable features began to show themselves. The symptoms presented before the later stages in which the case became complicated with general sepsis are worth bearing in mind. They were pain round the right shoulder, headache, and general malaise, a rise in the temperature and pulse rate, and subsequently pain in the epigastrium. The pain round the shoulder was so persistent and formed so marked a feature that I should in future attach a good deal of importance to it. The question of sub-phrenic abscess was discussed, but I never succeeded in locating it, and my colleagues, Dr. Handford and Dr. Ransom, who repeatedly examined the patient, were unable to discover any physical signs by which its presence could be positively determined. I believe there is no spot in the body where the detection of pus is more difficult than at the back of the right lobe of the liver. This is fortunately an unusual situation for it to occur. After gastric perforation sub-phrenic abscess has been far more commonly found under the left arch of the diaphragm and is attended with signs of localised peritonitis in the epigastric and left hypochondriac regions. But the difficult question remained in this case, Was there any collection of pus, and if so where?

The second operation demonstrated, as I thought, the absence of pus under the diaphragm, as none was found anteriorly between either lobe of the liver and the muscle. This case teaches the important lesson that matter may form and become encapsuled about the posterior border of the liver without any evidence

of its existence being discoverable by a reasonable exploration from the front. If the diagnosis were made the best course to pursue in treating such a case would be to resect a couple of ribs posteriorly, incise the diaphragm, and evacuate the pus through the pleura. This route should be chosen for two reasons—because it is the nearest by which it could be reached and also because, although the passage of this highly septic material through the pleura would not be free from risk, such risk would be very much less than conduction through the peritoneal cavity, the only other possible method of exit. If unrelieved by operation these abscesses prove very fatal from septicæmia and often infect the pleura and lung of the same side. They sometimes occur as the result of a minute perforation of the stomach which has been closed by adhesions to neighbouring organs and either has not been diagnosed or is accompanied by symptoms not severe enough to make the need for immediate operation clear. In these cases the few drops of stomach contents which escape are sufficient to start the septic process which results in the formation of an abscess in an inaccessible position which soon endangers life. This furnishes an additional reason for the need of immediate operation if the diagnosis of perforation can be made. Such abscesses may occur between the diaphragm and the left lobe of the liver, between the stomach and the liver, between the stomach and the spleen,[2] and lastly between the diaphragm and the right lobe of the liver. In this connexion it is well to remember that in a very large percentage of cases of perforating ulcer the lesion has been found on the anterior surface of the stomach.

Prevention of this unfortunate complication is better than cure, and sub-phrenic abscess can be largely guarded against by the technique observed during the performance of an operation for perforated gastric ulcer. The convex surface of the liver and the pouch that exists above its posterior attachment is the one spot in the abdomen which is likely to be overlooked in the cleansing process if the operator has not this region in mind, and it is a part to which the experience of these two cases has taught me especial attention should be given. In the second case after the toilet of the abdominal cavity had been completed I washed out several ounces of escaped stomach contents from above the liver, which would almost certainly have caused suppuration if left. In both cases the same plan of cleansing was followed, and the results obtained would induce me to repeat this method. The lips of the wound being held apart and lifted up, large quantities of boiled water were poured into the abdomen out of jugs, the size of those used in bedrooms, until it returned clear. This is much preferable to the douche as the volume of water flushes out the cavity very effectually, and it also effects a considerable saving in time. Afterwards the remaining fluid was removed with sponges and wiping was resorted to in any suspicious situations. In cleansing the sub-phrenic space a rubber tube attached to a douche was pushed well to the back of the liver on either side of the suspensory ligament, and by raising the costal margins and depressing the liver, the whole of the convex surface was in this way cleansed. After the water returned clear a flat sponge was introduced down to its posterior attachments and the space wiped out. In the first case the region in question was not cleaned out so thoroughly as this; had this plan been adopted no doubt a successful result would have been obtained.

With respect to the incision it was the same in both cases, a median one, extending from just below the xiphoid cartilage to the umbilicus, or a little below it. This should be sufficient for the closure of a gastric ulcer wherever situated, without any side incisions or cross cuts. Through this opening the whole of the interior of the abdomen can be reached and the various localities where food is likely to collect—the loins, Douglas's pouch, &c.—can be effectually washed and afterwards sponged out. I found no difficulty in passing the hand into the pelvis and wiping its floor with a sponge. In both cases the wound was completely closed and no drainage employed. In the second case the ulcer was excised.[3] The specimen showed well its clean punched-out appearance on the mucous surface and the small round perforation through the peritoneal coat. The question as to whether excision is advisable is still an open one. Some writers deprecate it on account of (1) the additional time consumed; (2) the additional hæmorrhage occasioned; (3) the increase of shock to the patient by converting a small hole into a large gap, requiring a great number of sutures for its closure; (4) the risk of a considerable addition to the escape of the gastric contents; and (5) the difficulty in closure owing to protrusion of the mucous coat. These objections in many cases would be real enough to make the operator decide to give closure the preference over excision. In Case 2 the local appearances indicated clearly that the ulcer was a small and deep one, but even this left on its removal a wound in the stomach wall one and a half inches long by three-quarters of an inch broad, and required fourteen sutures for its closure. I have now the satisfaction, however, of knowing that the woman's disease is cured, that the previously existing symptoms have disappeared, that her digestion is normal, and that she has, I believe, been completely restored to health.

Nottingham.

[2] An interesting specimen of abscess in this situation was shown to the meeting by Mr. W. J. Stephens. The patient, a middle-aged woman, died from what was thought to be a malignant growth under the liver. She was only seen by Mr. Stephens shortly before death, and no clear history could be obtained. Post mortem an ulcer of the stomach was found which had leaked through a minute opening and occasioned an abscess containing nearly a pint of matter, lying in the left hypochondriac region between the stomach and the spleen. There was no general peritonitis.

[3] Both the specimen and the patient were exhibited at the meeting.

A CASE OF
STRANGULATION OF THE ILEUM BY PASSAGE THROUGH A CONGENITAL MESENTERIC HOLE; OPERATION; RECOVERY.[1]

BY J. STANLEY KELLETT SMITH, F.R.C.S. ENG.

A GIRL, aged fifteen years, was seized, while walking in the street on the afternoon of June 23rd, 1897, with violent abdominal pains, quickly followed by persistent vomiting. Mr. Bassett Jones, of Aberystwith, who saw the girl the next morning, reported on her condition then as follows: "The patient complained of severe pain referred to the umbilical region; the pain was continuous, but accompanied with paroxysmal exacerbations about every ten minutes, during which the patient suffered great agony. The tongue was furred. The pulse was 90, sharp and small; the respirations were 20; and the temperature was 98·2°F. The abdomen was flaccid and flat, with the walls moving on respiration; there was no local swelling to be seen. It was resonant on percussion, but not tympanitic; there was a small area of dulness in the right iliac fossa, over which there was some tenderness on pressure. Palpation revealed nothing, except a sense of resistance over the above-mentioned area of dulness. There was no passage of flatus or fæces. Vomiting was frequent and of a bilious character; the act was not preceded by much nausea and the stomach emptied itself without apparent effort. Rectal examination revealed only the presence of small scybala." The lower bowel was emptied by enemata and everything that could be suggested in the way of palliative treatment was tried, but without relief to the symptoms. I saw the patient in consultation on June 27th, four days after the onset of the illness. Intestinal obstruction had remained complete, and she was then in a state of great exhaustion. The pulse was 140 and of very unpromising character. The respirations were 32. The abdomen was tympanitic, excepting a small patch of dulness in the right iliac region, and over this patch any pressure upon palpation was strongly resented by the muscles of the abdominal wall. When I saw her vomiting had just taken place, the ejected matter consisting of diluted bile with particles of curd of the milk which had been given in small quantity as food. There was no suspicion of fæcal odour. Operation was advised and immediately carried out. The abdomen was opened from the umbilicus to the pubes. Coils of distended and congested small intestine bulged through the wound and the escape of these was encouraged until the disposition of the mesentery could be comfortably made out. The gut was then carefully drawn from the abdominal cavity, proceeding always downwards, until the lower part of the ileum was reached, tender manipulation being here necessary owing to

[1] A paper read before the Liverpool Medical Institution on Oct. 21st 1897.

the greatly increased congestion of the bowel. The cause of mischief was found in the shape of a hole in the lower part of the mesentery, pyriform in shape, measuring some two and a half inches by two inches, with its larger end close to the mesenteric attachment of a small loop of bowel, which, taking its upper and lower limits as fixed points, had swung itself through the hole and thus become strangulated. The parts were judged capable of recovery and so were restored to normal position, recurrence of the accident being guarded against by closure of the aperture. The exposed intestines were then washed with weak perchloride solution and replaced in the abdominal cavity with some difficulty, but without the necessity of puncture for gas drainage. The total time of operation occupied thirty-five minutes. Recovery was uninterrupted. Flatus passed on the day following the operation, and the bowels were voluntarily moved on the fourth and subsequent days.

Remarks.—Holes may occur in the mesentery as the result of disease, of injury, or of congenital malformation. The absence of any sign of previous disease or injury and the negative history thereof, the smooth thickened margin of the aperture, its size and the regularity of its outline, and especially its situation in the lower part of the mesentery, at the spot where such developmental deficiencies most frequently occur, lead me to regard this case as a typical example of a congenital mesenteric foramen.

Liverpool.

ATONIC APHONIA.

BY ALEXANDER WALLACE, M.D. OXON., M.R.C.P LOND.,

SENIOR PHYSICIAN TO THE ESSEX AND COLCHESTER HOSPITAL.

AFTER reading Dr. Bastian's clinical lecture on Hysterical Mutism and Other Functional Speech Defects, published in THE LANCET of Sept. 25th, 1897, p. 775, it struck me that the following case might be interesting as presenting some points of difference to the cases mentioned by him in his paper.

A man, aged thirty-seven years, married, the parent of two children, the youngest of whom was five years old, came to consult me on July 7th, 1897. Eighteen weeks before he had suddenly lost his speech, never having been dumb before. His hearing and other senses were perfect, and his general health, he said, was good, but he had never been strong. His parents had both died from old age. About a week after the seizure he, by the wish of his medical attendant, went to a London hospital, where, according to his account, he was an hour under examination. His larynx was examined externally and by the laryngoscope, and he was somewhat roughly treated, he said, to make him cry out, but to no purpose, and he had remained in the same dumb state since. He was a rather spare, short man, of nervous habit, and somewhat depressed. His wife accompanied him. He wrote in my presence statements regarding himself coherently and accurately; attempting to speak, the lips and tongue movements were correctly made as if speaking, but no sound issued, not even a whisper; this his wife stated was his then normal condition. He complained of some languor and feebleness, with restlessness at night. There was no cough; his appetite was bad, but the bowels were regular and the urine was acid. His memory was good. Sometimes he felt a sudden fluttering at the præcordia with headache. Sensation was unimpaired. Locomotion was not so good as before. "He knows exactly what he wants to say, and frames the words with his lips, but no sound comes." The features were straight and the tongue was not deflected; no trace of any prior cerebral attack could be detected. The pulse was irritable, 90, of good volume, but rather tense. Examination of the neck and external larynx revealed nothing but some old superficial cicatrices. The heart sounds were normal, but rather weak; cardiac dulness was normal. The liver, spleen, and abdomen were normal. The battery had, he told me, been applied to him both at the hospital in London and afterwards by his medical attendant both externally to the larynx and internally, but without any result. The case seemed to me to be unusual because: (1) there was no evidence or history of any cerebral implication; (2) there was not the slightest whisper, such as we hear in hysterical mutism; (3) the mouth and lips were correctly acting as if articulating, yet no sound issued; and (4) his written answers and his written sentences were correctly given and spelt. On further inquiry I elicited that twice since the attack during the first month he had pronounced the names of people distinctly and correctly, but felt weak and vertiginous afterwards, with pain at the præcordia and great pallor; that he was a great walker, doing generally ten miles a day; that he was restless and excitable, brandishing his arms much; and that he smoked six pipes a day and indulged in coitus three times a week. I thought I saw daylight in these faulty habits. I cut down the coitus to once a fortnight, the pipes to two per day, and a bicycle was to be used in moderation instead of walking ten miles a day. I gave him an acid mixture with five minims of solution of strychnia and one and a half grains of quinine three times a day. To my surprise on July 16th the patient came to me to say that on the 14th he spoke audibly, "I feel better," and that he has since spoken a little each day in the evening; he spoke to me that day clearly; in a low, distinct voice he said that he slept better. The pulse was 80 and soft. I saw him again on July 29th; he had quite recovered and had had no return of the mutism. It seems to me that "atonic mutism" is the right description of what I suppose is a somewhat unusual but happily an easily recoverable form. I have recently heard that he remains quite well.

Colchester.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

PERMANGANATE OF POTASSIUM AND OPIUM POISONING.

BY REGINALD NITCH-SMITH, M.R.C.S. ENG., L.R.C.P. LOND.,

LATE SENIOR HOUSE PHYSICIAN AND CHLOROFORMIST, WESTMINSTER HOSPITAL.

THE following case of accidental opium poisoning with successful treatment occurred whilst I was in charge of the casualty department of Westminster Hospital.

A male adult, aged thirty-five years, well nourished, gave on his recovery the following history: "At four o'clock this morning I took two tablespoonfuls of laudanum in mistake for black draught, after which I went to bed, and on being called at seven I thought something must be wrong as I felt so drowsy. I examined the bottle and found I had made a mistake. I then took the proper black draught, got up, and went for a walk. On passing the hospital I felt so very sleepy that I thought it best to come in for treatment." When I saw him, four hours after he had taken the opium, the patient was asleep on one of the seats in the surgery. I immediately roused him, gave him some strong coffee and a hypodermic injection of caffeine, three grains. Two porters were instructed to walk the patient about. His pupils at the time were contracted and failed to respond to light; the mouth was dry and the tongue coated; the skin was cold and clammy. The pulse was 108 and feeble, respiration was somewhat laboured, and the muscles were relaxed. He could only just be roused by loud shouting. Two more caffeine injections were administered with no beneficial result. I now decided to try permanganate of potash, which I gave in the form of the liquor, four drachms. As a result there was slight improvement. Soon after I again gave him four drachms, thus making in all one ounce, = 4·8 gr. Fifteen minutes later the patient vomited a large quantity of black fluid. From then his recovery was rapid and complete. He was, as is usual in these cases, admitted into one of the medical wards and detained for forty-eight hours, my instructions to the nurse being to watch the patient closely and to administer nourishment every three hours. On testing the urine it was found to be normal. There was no meconic acid. It will be seen that the draught taken by mistake contained 33 grs. of opium or 3·3 grs. of morphine.

Dr. William Moor, of New York, ascertained that one grain of permanganate of potash oxidises one grain of morphine. With such undisputed evidence before us it is surprising that such a reliable and easily attainable antidote

for opium poisoning does not find a prominent place in text-books on poisons and their treatment. The important point in this case is that the permanganate of potash had its desired effect even after five hours had elapsed from the time of taking the poison.

Bessborough-gardens, S.W.

PUERPERAL ERYTHEMA.

BY JOHN JOSEPH STACK, L.R.C.S. IREL., L.R.C.P. EDIN.

ON Aug. 22nd I attended a woman, aged thirty years, who was in her second confinement and was delivered naturally of a healthy male child. Her recovery was uninterrupted for seven days, when she unfortunately used the commode with her bare feet resting on cold oilcloth, and next day (Aug. 29th) complained of a severe headache and thirst, and vomited slightly. The patient's pulse was 120, soft and compressible, and her temperature 103° F. The uterus was syringed out and twenty grains of quinine were given in the form of pills. Immediately after drinking some iced water she was seized with an ague-like rigor which lasted twenty minutes and was followed by profuse sweating. The patient's temperature increased to 105°, and she was hysterical, her pupils being widely dilated and her face flushed. I removed some clots from the patulous os uteri, and injected hypodermically one-fiftieth of a grain of ergotinine citrate. In about half an hour the temperature fell to 100°, her pupils contracted considerably and the headache passed off, but she still looked very haggard and worn. On Aug. 30th she felt better; the temperature was 101·2° and the pulse 104. The patient's face and hands were quite red, and there was also a scarlet rash over the breasts. By night time the temperature fell to 99°. On Sept. 1st she passed some clots of blood per vaginam and complained of headache and throbbing on the top of the head. The rash was well out on the trunk. The temperature was 99° in the morning and 99 5° in the evening. On Sept. 2nd she was comfortable and cheerful, but there was an offensive discharge and the uterus was again washed out. The rash was well developed mostly on the trunk and legs. The temperature was 100·4° in the morning and 100° in the evening. On Sept. 3rd the temperature was 100·4°. The rash was well out and extended to the arms and hands, the fingers being swollen and covered by red elevated patches. The uterus was again washed out. On Sept. 4th the temperature was 100·4°. The rash was then disappearing. The urine contained no albumin or sugar. The face appeared puffy; the right breast was hard and painful. On Sept. 5th the rash was completely gone. An abscess was opened in the right breast, which gave trouble for about a week subsequently. The patient ultimately made a complete recovery. There was no desquamation after the rash, the throat was not at all affected, and there was no possible history of scarlatinal contact.

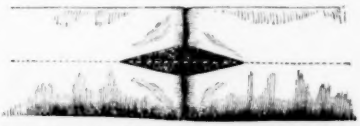
New Cross, S.E.

"A METHOD OF UNITING THE DIVIDED INTESTINE."

BY G. LENTHAL CHEATLE, F.R.C.S. ENG.,
ASSISTANT SURGEON TO KING'S COLLEGE HOSPITAL AND TO THE WEST LONDON HOSPITAL.

IN THE LANCET of May 22nd, 1897, I described a method of uniting the divided intestine the essential features of which were two incisions, one placed in each extremity of the divided ends, and opposite to, as well as parallel with, the mesenteric attachment, so that they enable the operator to sew together the separated ends of the canal with their serous surfaces in perfect apposition. It will be seen that when the ends of the intestine are thus joined one longitudinal opening must necessarily result (see Fig. 1), and I described how this aperture was stitched up as a longitudinal one. This, like most other methods of intestinal resection, leaves the lumen of the canal smaller than normal, and the size of the tube must be still further diminished by the subsequent contraction of the encircling cicatrix. To prevent stricture is a great source of difficulty. Any procedure that has for its objects diminution of the stricture as well as the union of the divided ends must be worthy of consideration. By altering the treatment with regard to the longitudinal opening (see Fig. 1) I hope to make the above method

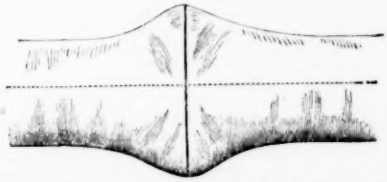
FIG. 1.



Showing the longitudinal opening into the gut after union of the cut ends. It is placed opposite to, and parallel with, the mesenteric attachment. The latter is represented by a dotted line.

accomplish the former object as certainly as it does the latter. In my most recent operations upon dogs I have brought the extremities of the longitudinal aperture (see Fig. 1) into apposition, and thus fixed them and then sewed up the opening that had thereby been made transverse to, or at right angles with, the attachment of the mesentery (see Fig. 2).

FIG. 2.



Showing how the longitudinal opening has been made continuous with the united ends by converting it (the longitudinal opening) into a transverse one by having brought its extremities into apposition and its fixation in that direction. The mesenteric attachment is represented by the dotted line.

And hence nearly the whole length of the previously longitudinal aperture is thrown into the continuity of the lumen, which must necessarily increase its size. Halsted's square stitch I find the best for this purpose. It will be remembered that in non-malignant strictures of the pyloric end of the stomach a longitudinal incision is purposely made into the strictured parts in order to convert it into a transverse one, and Mr. Allingham has done the same thing in similar strictures of the intestines.

Harley-street, W.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The first meeting of the sixteenth session of this society was held at the West London Hospital on Oct. 8th, 1897. The President, Dr. H. P. Potter, read the opening address entitled "Some Aspects of Heredity," which was received with much appreciation by the members, who had attended in a good number. A vote of thanks was proposed by Mr. C. B. Keetley and seconded by Dr. Symons Eccles and carried unanimously. Dr. Potter replied in a few appropriate words. The officers for the ensuing year are:—President: H. P. Potter, M.D. Durh., F.R.C.S. Eng. Vice-Presidents: C. Wells, M.D.R.U.I., Swinford Edwards, F.R.C.S. Eng., Donald Hood, M.D. Cantab., F.R.C.P. Lond., R. J. Bannig, M.D. St. And., A. Symons Eccles, M.B. Aberd., Bruce Clarke, F.R.C.S. Eng., R. Lake, F.R.C.S. Eng., W. H. Lamb, M.B. Lond., A. G. Wells, M.R.C.S. Eng., and C. M. Tuke, M.R.C.S. Eng. Council: L. A. Bidwell, F.R.C.S. Eng., H. Des Vœux, M.D. Brux., William Hunter, M.D. Edin., F.R.C.P. Lond., F. Lawrence, M.R.C.S. Eng., Herbert Menzies, M.R.C.S. Eng., Seymour Taylor, M.D. Aberd., M.R.C.P. Lond., Andrew Elliot, M.D. Edin., F. H. Low, M.B. Aberd., G. H. D. Robinson, M.D., M.R.C.P. Lond., James Harper, M.D. Lond., C. Andrews, M.R.C.S. Eng., and Neville Wood, M.R.C.P. Lond. Treasurer: T. G. Aldertor, M.R.C.S. Eng. Secretaries: F. J. McCann, M.D. Edin., M.R.C.P. Lond., and W. McAdam Eccles, M.S. Lond., F.R.C.S. Eng. Librarian: C. B. Keetley, F.R.C.S. Eng. Editor of Journal: H. Percy Dunn, F.R.C.S. Eng.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GENERAL HOSPITAL, GREAT YARMOUTH.

A CASE OF TETANUS TREATED WITH TETANUS ANTITOXIN; DEATH.

(Under the care of Dr. H. BLAKE.)

THE discovery in 1885 by Nicolaier of the bacillus of tetanus did much to systematise the treatment of the disease. Amputation had fallen into disuse, as it was found that it rarely succeeded in saving the life of the patient; but now in suitable cases it is an important method of treatment, as it has been conclusively shown that the bacillus is only found in the neighbourhood of the wound, and its presence in the blood or the central nervous system has never been demonstrated. In amputation, however, there is very great risk of inoculating the amputation wound with the bacilli from the original wound or of making the incisions through tissues too close to the site of infection. The value of tetanus antitoxin in certain cases is practically beyond dispute, but in some instances, as in the following, it fails, and we are still in want of exact indications as to the amount of the antitoxic serum which it is desirable to inject. For the notes of the case we are indebted to Dr. F. M. Fellows, house surgeon.

A boy, aged nine years, was admitted to the General Hospital, Great Yarmouth, on Oct. 2nd, 1897. The patient had fallen under a van and the wheel had inflicted an extensive lacerated wound on the inner side of the right knee, opening into the joint. There was great laceration of the soft parts and they were much ingrained with dirt; but, taking into account the age of the patient, it was decided to make an attempt to save the limb. An anæsthetic was accordingly administered and the wound was thoroughly disinfected. Under antiseptic treatment with continuous irrigation of the joint, the patient made good progress up to the 13th, the local condition improving and the temperature being kept within bounds. On the evening of the 13th, however, it was noticed that the patient had difficulty in opening his mouth. The masseters were then found to be in a state of tonic contraction, and there was some stiffness of the muscles of the neck, back, and abdomen. The temperature was 99° F. Amputation above the knee through apparently healthy tissue was performed at 10 P.M. and a supply of tetanus antitoxin was telegraphed for. On the 14th he had passed a good night; the temperature was 100·2°, the pulse was 136, and the respiration was 24. The masseters were slightly less rigid, but there was commencing risus sardonicus. 20 c.c. of tetanus antitoxin were injected under the skin of the abdomen in two doses, one at 3 P.M. and one at 11 P.M. On the 15th there was rather more stiffness of the masseters and of the muscles of the face, neck, and abdomen, as well as slight opisthotonos and commencing stiffness of the muscles of the extremities. The temperature was 99·4°, the pulse was 132, and the respiration was 24. 29 c.c. of antitoxin were administered in three doses at 7 A.M., 4 P.M., and 12 midnight. On the 16th he had passed a bad night. Two tetanic convulsions, affecting the muscles of the face, neck, and upper extremities, occurred during the night. Food by the mouth brought on a tendency to these convulsions, and rectal feeding was accordingly substituted. The temperature was 100·8°, the pulse was 120 and weak, and the respiration was 24 and laboured. 30 c.c. of antitoxin were injected under the skin of the thigh in three doses at 8 A.M., 12 noon, and 8 P.M. Several partial convulsions, as above described, occurred during the day, but never a general tetanic convulsion. All the symptoms became aggravated. The temperature went up steadily to 105°, the pulse could not be counted after 2 P.M., and the patient was evidently dying. Death took place at 11 P.M., the temperature immediately after death being 108°.

Remarks by Dr. FELLOWS.—Although the incubation period was long—eleven days—the disease ran a rapid course, killing the patient in four days. The amputation appeared to delay the progress of the disease, but the course of the disease was apparently quite unmodified by the antitoxin. I should be glad if any readers of THE LANCET could inform me if the bacillus of tetanus has ever been discovered in the general circulation or anywhere in the body at a distance from the site of inoculation. The antitoxin used was that supplied by the British Institute of Preventive Medicine; it produced no local irritation or febrile reaction.

LIVERPOOL STANLEY HOSPITAL.

A CASE OF HERPES; GANGRENE; DEATH.

(Under the care of Mr. DOUGLAS CRAWFORD.)

FOR the notes of the case we are indebted to Mr. F. Deas, senior house surgeon.

A patient, aged four years, was brought to the out-patient department of the hospital on August 24th last. He was then suffering from well-marked herpes, which was limited very exactly to the area of skin supplied by the twelfth dorsal nerve on the left side.[1] The eruption had then been out for a little over a week and showed three characteristic stages. It had commenced near the middle line of the back and gradually spread round to the front. The lesions appeared first as groups of papules on an inflamed base; these soon became vesicular, and when seen many of the vesicles were purulent and many groups had coalesced. All three stages were well seen. None of the vesicles had yet burst. The inflammation was well marked and had spread slightly into neighbouring skin areas. The child complained of acute burning pain in the affected area. The mother said that before the rash came out the child complained of pain in the bottom of his back. The mother gave a syphilitic history, and the child showed many signs of congenital syphilis. The child was put on quinine mixture, and was also given two grains of pulvis hydrargyri cum cretâ every morning. A local application of weak lead lotion with liquor carbonis detergens was also ordered. Mr. Deas saw the child again a week later, and then all traces of the characteristic eruption had disappeared. Instead, the skin area affected presented many patches of gangrene varying in size from that of a threepenny-piece to that of a crown. The inflammation was intense in the patches of skin intervening between gangrenous portions. The child looked extremely ill, but did not appear to suffer much pain. The diseased skin gave forth a horrible necrotic odour. The mother refused to leave the child in the hospital, but brought him again two days later, when he was admitted. He was then evidently suffering from the effects of septic absorption. The gangrenous patches had nearly all coalesced. Every effort was made to get rid of the dead skin and subcutaneous tissue by removal and hot boracic fomentations, but the child never rallied and died from septic poisoning four days after admission. While in the hospital the temperature varied between 99° and 101° F.; just before death it was 102°. The patient had diarrhœa during the last two days.

Remarks by Mr. DEAS.—I suppose the gangrene to be due to vaso-motor paralysis, being a further stage of the cutaneous neuritis. Death from herpes zoster is rare in any case, though more or less extensive sloughing is not very uncommon. Probably the case would not have had a fatal termination had the child been left in the hospital at the commencement of the attack. Unfortunately the body was removed a few hours after death, and I could not get a post-mortem examination.

HERTFORD BRITISH HOSPITAL, PARIS.

RECOVERY UNDER DIGITALIS IN LARGE DOSES IN A CASE OF APPARENTLY IMMINENT DEATH.

(Under the care of Dr. ALAN HERBERT.)

IT is undoubtedly the fact that even small doses of digitalis will materially modify the action of the heart, strengthening the force of the contraction and diminishing the frequency of

[1] Vide Quain's Anatomy, vol. iii., part ii., p. 376.

the beat, but it is often noticeable that this action of the drug does not manifest itself for two or three days after the commencement of the administration. When a more rapid effect is desired the amount of the dose must be increased, or, what is better, the same dose must be administered more frequently. The innocuousness of very large doses of digitalis under certain circumstances was first pointed out by Mr. Jones, of Jersey, who gave half an ounce of the tincture for delirium tremens, and repeated it if necessary after four hours and again in six hours. In many cases the effect was marvellous, the pulse improved, and sound sleep followed, but in a few cases sudden fatal collapse occurred, and it is probable that these fatal cases, though the death had not necessarily been the result of the digitalis, led to an almost complete disuse of these very large doses of digitalis. In Dr. Alan Herbert's very interesting case the failure of the heart was marked, and, as the result showed, it needed much larger doses of digitalis than are usually given. For the notes of the case we are indebted to Dr. A. A. Warden.

A man, aged forty-six years, was on Oct. 11th, 1897, admitted into the Hertford British Hospital, Paris, under the care of Dr. the Hon. Alan Herbert, in a state of extreme weakness, with a rapid, irregular heart, some œdema of the feet and hands, and passive congestion of both lungs. The patient had had "pleurisy" two years before and had been in hospital at that date with a definite though slight tuberculous lesion of the left lung. Little alteration, according to the nurse's report, took place in his condition until the evening, when Dr. Warden was suddenly sent for on account of an increasing difficulty in breathing. It required little more than a glance to grasp the fact that the man was apparently dying, and dying rapidly. His face was dusky and grey rather than livid, and, with his neck and chest, was bathed in perspiration. The loud tracheal rattle and laboured respiration as he rolled his head in distress from side to side made auscultation valueless. The cardiac impulse, however, irregular and soft, could be felt by the palm of the hand. His pulse was a mere flicker, exceedingly rapid and irregular both in force—an occasional beat being almost surprisingly strong to the finger on the radial artery—and in rhythm, many of the cardiac beats being apparently imperceptible at the wrist. His extremities, especially the legs, were cold. The nurse had at once given him half an ounce of brandy, which, however, was promptly vomited with some slops taken about an hour before. The patient had spent the previous week in Paris, out of work, with practically nothing to live on, and, medically speaking, altogether untreated. So far, therefore, therapeutics had a fair field. At once a hypodermic injection of $\frac{1}{75}$ gr. of strychnine was given, and almost immediately a second injection of 30 minims of ether, while half an ounce of brandy was given by the mouth. This happily was retained, as was all further medicine. Two mustard leaves (about 5 in. by 3 in.) were applied over the heart and six mustard leaves upon each leg along the thighs and calves, with hot bottles to the feet. He was then put upon 20 minims of the tincture of digitalis in 2 teaspoonfuls of brandy every quarter of an hour. These measures were continued, with some irregularity owing to the patient's condition and the difficulty in getting him to swallow the stimulant, from 8.45 P.M. until midnight. In the space of these three and a quarter hours he had taken 3 dr. of the tincture of digitalis and 2½ oz. of brandy. The result at that hour was appreciable, and as he complained of intense headache and there seemed nothing to gain by supplying stimulant more rapidly than it could be absorbed both the digitalis and the brandy were stopped and milk and soda-water given to relieve his thirst. At 2 A.M. his condition had vastly improved, his respiration being deeper and less laboured, the tracheal rattle less distressing and loud, and the pulse, though scarcely less rapid, was far more regular both in rhythm and in force. His bowels were moved four times in the course of the night, twice spontaneously, the patient being too weak to call forth the action of his sphincters. A specimen of urine which was passed was found to be very smoky and blood-coloured, and the microscope showed abundant red corpuscles. No casts could be detected, but a small amount of albumin was present, such as might have been entirely due to the amount of blood present. The urine was alkaline in reaction, with a specific gravity of 1012. About 4 A.M. he vomited twice, but it immediately followed a drink of milk and soda-water and was not even tinged yellow, as might have been expected. At 9 A.M. he was evidently out of immediate danger. On the evening of Oct. 12th his temperature rose to 101·2°, his pulse varying through the day from 104 to 130 beats per minute. The hæmaturia continued, 20 oz. of urine being passed in the first eighteen hours, some, however, being lost on account of the diarrhœa present. By the 14th his temperature had fallen to normal, his pulse was beating steadily at from 86 to 92 per minute, the urine amounted to 70 oz. in the twenty-four hours, and the lungs were very much clearer.

Remarks by Dr. WARDEN.—I venture to call attention to the following points and would be grateful for the opinion of any therapeutic *maître* upon them: 1. The digitalis did not slow the pulse so much as it regulated it in every way. It cannot be said to have caused the vomiting which occurred, and the diarrhœa certainly began before the patient had taken more than 30 minims and had quite ceased by the morning of Oct. 12th. Headache and thirst, both of an extreme degree, seemed to follow the use of the drug. Had he vomited recourse must have been had to hypodermic injections of digitalin. 2. The apparent innocence of such doses—toxic according to the British Pharmacopœia; huge according to the general practice of the day—suggests the query, still unanswered satisfactorily I think, Is the regulation dose of 5 or 10 minims three times a day sufficient to affect appreciably the human heart? 3. Can the somewhat heroic treatment so hastily put in force account for the hæmorrhage from the kidneys which, in all probability, were in a state of passive congestion? That there was no vesical congestion is proved by the tolerance of distension shown by the bladder.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Calcareous Metamorphosis of the Tracheal Lymphatic Glands leading to Perforation of the Arch of the Aorta.—Pathology of Pernicious Malarial Fevers.

A MEETING of this society was held on Oct. 26th, the President, Dr. HOWSHIP DICKINSON, being in the chair.

Dr. SIDNEY PHILLIPS read a paper on a case of Calcareous Metamorphosis of the Tracheal Lymphatic Glands, leading to Mediastinal Abscess and the Formation of a Bronchial Fistula and to Perforation of the Arch of the Aorta. The patient was a man, twenty-six years of age, who during two years before the onset of chest symptoms had suffered from several attacks of rheumatism. In 1887 while riding he was seized with intense pain round the right third intercostal space, with hyperæsthesia of the skin of the chest as far down as the sixth rib without any physical signs of disease in the chest. Eleven days later he had a series of rigors followed by sustained pyrexia, the pain continuing. There was a little friction heard on the eleventh day at the left back, and a month later incessant spasmodic dry cough due to irritation of the laryngeal nerves. Suddenly pleuritic effusion occurred into the left pleura and repeated aspiration of clear fluid was necessary. Later there was evidence of the existence of the free air in the pleural cavity and for the first time a small quantity of pus was expectorated. As his breathing was much embarrassed and there were frequent syncopal attacks which threatened life a free incision was made by Mr. Godlee into the pleural cavity and fluid was evacuated. The patient's condition at once improved and he gradually returned to a fair condition of health. He continued well except for some wheeziness of breathing until eighteen months later, when he had sudden severe hæmoptysis. This occurred again and again during a period of eighteen months, till he died from hemiplegia. The necropsy showed the presence of a small tumour at the tracheal bifurcation composed of adherent calcareous glands. In the substance of this tumour an abscess had formed and discharged through the right bronchus, leaving a permanent fistulous opening into it. A perforation had also been formed by erosion between the calcareous mass and the arch of the aorta, the aorta being thus brought into communication with the abscess cavity, and so indirectly with the bronchus. Dr. Phillips commented on the difficulties of diagnosis, and on the remarkable fact that an aperture should have existed for

so many months in the aorta only a few inches from the heart without causing death earlier.

Dr. THIN contributed a paper on the Pathology of the Pernicious Malarial Fevers of Sierra Leone. In February, 1896, Dr. Thin contributed to the society a note on the appearances found in the tissues in a fatal case of pernicious malaria at Sierra Leone. Since then he had examined tissues in three additional cases of pernicious malaria occurring at Sierra Leone, and in a case of pericarditis not complicated with malaria. In the case of pericarditis no parasite and none of the effects produced by the parasite of malaria were found. He described in detail the condition of the tissues in the three additional cases of malarial poisoning, and summarised the results found in these and the previous case. In the pernicious malarial fevers of Sierra Leone the disease is caused by the development of very great numbers of parasites in the capillaries of the brain. Each parasite in its earliest stage is a very minute, round, nucleated, protoplasmic structure, the diameter of which is about a fourth or a fifth of that of the red corpuscle. As it develops from three to five and sometimes a greater number of spores are formed. The sporulating parasite is comparatively small, in sections of hardened and shrunk tissue not filling more than from a third to one-half of the red corpuscle, and with a disproportionately large amount of central pigment. Small cerebral hæmorrhages are sometimes found surrounding a blood-vessel which contains parasites, the wall of the vessel being probably weakened as a result of the degeneration of the endothelium which is associated with the absorption of pigment. Very few parasites were found in other organs, and these only in the early stage. The veins of the brain and pia mater contain large numbers of white corpuscles loaded with pigment and débris of the parasite. The splenic pulp contains great numbers of pigment-laden white corpuscles, which are also found in considerable numbers in the splenic veins and perivascular lymphatic spaces. The lymphoid tissue of the spleen contains very few, and the Malpighian corpuscles none. The blood-vessels of the liver are more or less congested. In one case the capillaries were very greatly distended with blood. The endothelial cells of the capillaries in the liver contain much pigment, and those that contain pigment are degenerated and broken up. Pigment is found outside the capillary wall accumulating in blocks, and very large blocks are found in the interlobular perivascular spaces, presumably partly or entirely in lymphatic vessels, although the walls of such vessels were not seen in the sections. Pigment is also taken up by the liver cells, and the liver cells so affected undergo changes. The first stage in the morbid process is an enormous production of parasites in the brain. The last stage is an accumulation of pigment in the interlobular tissue of the liver, where in cases that recover it is probably destroyed and absorbed. Morphologically, the parasite of these fevers is distinct from the parasites of the quartan and tertian fevers and resembles that described by Marchiafava in the summer-autumn fevers of Southern Italy. The appearances in the spleen and liver correspond with those described by Bignami in fatal cases of malarial fever in Italy, but in the Sierra Leone cases no formation of crescent bodies had taken place up to the time of death, and none of the characteristic appearances in young parasites which are associated with a subsequent development of crescents were observed. Nothing was seen that would indicate that the blood in the spleen was more infected than the peripheral blood, or that the splenic tissue was a special nidus for the parasite. In the four cases examined the breeding place was the brain, which accounts for the symptoms observed during life. In connexion with the special selection of the brain by this parasite Dr. Thin called attention to the comparatively small size of the cerebral capillaries, their calibre not being much more than half that of the capillaries of the other parts of the body, and being scarcely equal to that of a red corpuscle. It is known that the infected red corpuscle adheres to the vascular wall, as is seen in the small veins. This tendency to adhere to the capillary endothelium, in conjunction with the small calibre of the cerebral capillaries, must favour their being blocked by the infected corpuscles. Dr. Thin suggested that the arrest of the infected corpuscles in these fevers in the brain capillaries, while the infected corpuscles in tertian and quartan fevers are not arrested in them, may be due to the greater toxicity of the parasite in these fevers which affects the red corpuscles more severely and renders them more adherent to the endothelium. The blocking once begun will be furthered by the short cycle of development of the parasite.—Dr. N. DALTON said that at the meeting of the British Medical Association at Bristol in 1894 he had shown sections of the liver in pernicious cases of malaria in which he had demonstrated the same changes in the endothelium and pigmentation of the connective tissue that Dr. Thin had now shown in association with the life-history of the parasite. The dilatation of the capillaries appeared to be permanent, the cells being found flattened just as in nutmeg liver, and he thought that the condition might lead to the development of interlobular cirrhosis. Possibly the extensive blocking of capillaries described might account for the cases in which high arterial tension without kidney disease was found after long residence in malarial districts.—Dr. JOHN ANDERSON said that information was wanted to explain the abundance of the parasites in the capillaries of the brain in these pernicious cases. In the anomalous cases which were described as a typho-malarial type, and which yielded so slightly to quinine, he thought that cerebral symptoms were more frequent than in the ordinary tertian and quartan forms. He mentioned two cases of people who had returned home after suffering severely from severe forms of malaria abroad, and were now liable to cerebral complications when there was any return of fever, one patient having intense pain in the head, and often delirium, and the other severe vertigo. He found these severe cases apt to resist quinine, but they yielded to arsenic. He often gave very large doses, as much as a drachm, of the liquor sodæ arseniatis three times a day, and the drug was well tolerated. Such doses had also been found useful in pernicious cases by Sir Anthony Home in the Ashanti campaign of 1873, and by Surgeon-General Taylor in the recent Ashanti expedition.—Dr. THIN said that there was a general consensus of opinion that in the pernicious forms of West African fever quinine in large doses was the best remedy. As much as twenty grains might be given every two hours. Unless large quantities of the drug were quickly introduced to kill the parasites they would destroy the patient. What was wanted was some preparation of quinine which could be injected subcutaneously without causing pain. Baccelli had used intravenous injections in some severe cases of Roman fever. He thought that the best treatment of people who were subject to a return of malaria was the continuous administration of moderate doses of quinine and arsenic. There was a troublesome group of patients who were invalided home with "climatic debility" who had never had any rise of temperature and were not supposed to have had malaria, but a prolonged examination of the blood rarely failed to show the presence of the parasite.

MEDICAL SOCIETY OF LONDON.

The Localisation of Rheumatism and Chorea.

A MEETING of this society was held on Oct. 25th, the President, Dr. SANSOM, being in the chair.

Dr. CHURTON (Leeds) read a paper on the Localisation of Rheumatism and Chorea. He said there were nearly 600 cases tabulated, and the state of health before the attack, the assigned causation, and the joints first affected, the occurrence of acetonuria, indicanuria, and constipation were noted. The previous health was decidedly not good in a great majority of cases; when alleged by the patient to be good it was far from perfect, and usually meant that he was not absolutely incapable of work. The causes assigned were chiefly wettings and injuries; in some of the cases in which no causation could be assigned indicanuria was found. It was constantly observed that the joints of those limbs which were chilled or injured were the first to suffer. There was no positive exception to this rule, although in a few cases—probably owing to imperfect information—there were apparent exceptions. But a case which recently occurred showed the necessity for caution. A girl, aged twenty years, whose disease began with pain in or about the right lower ribs, was quite unable to give any reason for this until repeated examinations of herself and her friends elicited the fact that after four weeks of unusually hard work at a mill three miles from her home she had hurriedly washed her head and chest one morning at six o'clock, dried her hair very imperfectly, had no time for breakfast, ran most of the way to the mill, worked from 7.30 A.M. to 2.30 P.M.

without food, and then walked home extremely tired. The same evening pain in the side and all over the head began; afterwards her shoulders and other joints were affected. In 21 cases of rheumatism in 1896 when more care was taken in sifting the evidence obtained, 14 clearly displayed the relation; in 7 it was not precise. In 3 it was a damp house; in 1 it was damp clothing; in another case the patient was a negro circus rider; in another case a miner; in the seventh the patient was a child addicted to eating sweets and ices; she had rheumatism in the lower limbs; acetone was abundant in the urine. The "toxin-local injury" theory of rheumatism had been held by Sir Dyce Duckworth and others. The toxin may perhaps be glycocine (Latham); if so the microorganism would not be found where it has been sought—in the blood, joints, &c. Moreover, disorder of the digestive epithelia and muscles may well be caused by shock to the brain; hence the rheumatic toxin may hereafter be found to be caused indirectly and the localisation of its effects directly by the same shock, or the latter by either simultaneous or subsequent chills or injuries. In 150 cases of chorea tabulated it was with respect to most of them impossible to reply to the questions—How is the connexion of the chorea with rheumatism shown? And even when the patient was admittedly rheumatic, why was the action of the toxin diverted to the brain? A few of the cases, however, showed the localising power of shock in rheumatic patients, thus bringing chorea more sharply into line with arthritis in this respect. Case 1. A man, aged twenty-three years, had chorea when eleven years old. In June, 1896, he had rheumatism of the knees. After a quarrel chorea began. Case 2. A boy, aged fourteen years, had been ill ten weeks with rheumatic fever. A school-board officer hurried him to school during convalescence; in a fortnight chorea appeared. 3. A boy, aged nine years, had had rheumatic fever twice. On Dec. 1st, 1891, he was startled by a man leaping out of an ash-pit in the dark and seizing his arm; chorea began next day, and two or three days afterwards arthritis. Case 4. A man, aged eighteen years, in October, 1895, had subacute arthritis in the knees after kneeling in wet sand. He had nearly recovered when he quarrelled violently with a relative; next day chorea appeared in the right face and limbs. Three days after this the right hand was painful and swollen for five days, when the chorea and pain were nearly gone. Another quarrel then occurred; next day chorea returned in the right hand and quickly spread through all the limbs. In a girl, aged eighteen years, the child of an alcoholic father, overwork in an insanitary house was followed by chorea and arthritis. She became sullen and apparently insane, but recovered under the free administration of port wine after failure of other means including inhalation of chloroform with morphia hypodermically. In the cases tabulated there was no instance of chorea primarily caused by chill and no case of arthritis primarily caused by fright.

Dr. STEPHEN MACKENZIE said that the investigation of rheumatism up to the present had been largely statistical. The method of detailed examination of individual cases adopted by Dr. Churton in his paper would be of the greatest value to future investigators. Dr. Cheadle in his book on Rheumatism in Childhood had shown the sequence of events that occurred in rheumatism traced through the life of several patients. He agreed that rheumatism was not expressed only by arthritis and pyrexia, but by inflammations of the serous membranes, cutaneous eruptions, subcutaneous nodules, and, of course, chorea. The localising effect of various causes had been brought out by Dr. Churton. He agreed that, as a rule, chill and wetting determined affection of the joints, while cases of chorea were chiefly excited by fright. Another localising factor was the age of the patient, chorea being common in children, while arthritis was rare. Possibly the occurrence of chorea in growing children was largely due to the instability of the brain during the period of rapid development, but he knew of no reason for the incidence on the joints in adults. Apart from any possible microbic infection there was in many persons an inherited proclivity to rheumatism. With regard to the previous history of the patients he had been struck with the infrequency of anæmia as an antecedent, although it so often followed as an effect. He expressed his emphatic belief that chorea and arthritis were equally manifestations of rheumatism, although the term rheumatism still required to be defined.

Dr. ARCHIBALD GARROD thought that the localising influence of an exciting cause was seen in an even more striking manner in gout than in rheumatism. He quoted two cases in one of which an attack of gouty eczema followed the application of belladonna liniment and in the other a severe gouty inflammation of the pinna occurred after the ear had been syringed. The grouping of rheumatic manifestations was curious. Chorea and endocarditis were frequently found together, and erythema often occurred in association with arthritis, but erythema was rarely complicated by endocarditis. Pericarditis was nearly always present in severe cases, such as those accompanied by much pyrexia or rheumatic pneumonia. He thought that injury and excessive exertion were very important factors in the localisation of the joint affection. With regard to the influence of fright as an exciting cause of chorea it should be remembered that an emotional condition was as much a symptom of chorea as the motor disturbance, and it was often the emotional condition produced by the chorea that caused the child to be severely frightened by a quite inadequate cause. A history of rheumatism was often unobtainable in cases of chorea, but in children rheumatism was often latent as in one case under his observation in which for four years the only indication of rheumatism was the occurrence of successive crops of rheumatic nodules.

The PRESIDENT read a letter from Sir Dyce Duckworth expressing the strong conviction that arthritis and chorea were two manifestations of the same morbid process. The President added that he himself did not share that view.

Dr. C. W. CHAPMAN quoted a case in which fatal chorea in an adult followed his being garroted.

Dr. C. H. F. ROUTH referred to the changes of type of rheumatism, gout, and other diseases that had occurred within his recollection. He believed that both rheumatism and chorea were due to some acid circulating in the blood, and that they were best treated by the free administration of alkalies. He believed that climatic influences and atmospheric electricity were important factors.

Dr. FLETCHER LITTLE observed that it was often difficult to trace the localising factor and quoted the case of twin sisters who both suffered from neurasthenia and one of them developed arthritis in all her joints, while the other, although exposed to precisely the same influences, remained entirely free from joint trouble. He remarked on the occurrence of epidemics of chorea without special climatic conditions; he thought that there was also an epidemic tendency noticeable in the occurrence of rheumatism as a complication of scarlet fever.

Dr. CHURTON, in replying, mentioned a case in which right brachial monochorea followed a blow on the left side of the head. Dr. Mackenzie's reference to anæmia as a post-rheumatic symptom suggested that anæmia may be one of the signs of pre-existing rheumatic poisoning in choreic children. The cloudy swelling of the pyramidal brain cells mentioned by Sir Dyce Duckworth was strongly suggestive of irritation by a toxin. Probably the urine would hereafter supply further evidence. In heredity the patient's proclivities to disease did not follow those of the parents at random, but only the proclivities of the parent whom the patient most closely resembled.

CLINICAL SOCIETY OF LONDON.

Congenital Dislocation of Both Hips on to the Pubes.—Primary Tuberculosis of the Nares.—Nævus of the Frontal Region.—Hemiplegia in an Infant.—Paraplegia with Multiple Subcutaneous Tumours.—One-sided Blushing on Eating.—Pylorectomy for Cancer of the Pylorus.—Coxa Vara in an Adolescent.

A CLINICAL meeting of this society was held on Oct. 22nd, the President Mr. LANGTON, being in the chair.

Mr. W. H. BATTLE showed a female infant, twelve months of age, with Congenital Dislocation of Both Hips on to the Pubes and Congenital Dislocation of the Right Humerus. The child was born after breech presentation, but he was unable to say if there had been any injury at birth. The child lay on her back with both thighs abducted and everted. There was very little difference in the attitude of the two limbs; the groins appeared full, while the buttocks were flat. When the child was lifted up the thighs remained abducted and everted. There were signs of an acetabulum of the right side, but none had been discovered on the left. On the right side the dislocation could easily be reduced,

but it immediately returned. On the left side the head remained on the pubes and was apparently ill-formed. There was also a sub-coracoid dislocation of the right humerus with atrophy of its upper end.—Mr. JACKSON CLARKE said that in specimens which had been dissected there had usually been an acetabulum, although only a small one. He thought that this was a suitable case for Lorenz's operation, if it were performed early.—Mr. MAKINS remarked that the dislocation in all three joints was forward. It was difficult to see how injury at birth could have produced them.—The PRESIDENT observed that for some reason these cases were much more common among female children.

Dr. ST. CLAIR THOMSON showed a woman, aged twenty-five years, who about two years ago began to suffer from nasal discharge and blocking of the right nasal passage. She then presented a smooth, bluish-pink, sessile growth the size of half a filbert on the right nasal septum, which was removed, and when examined histologically was found to be a tuberculous growth, though no bacilli were discovered. The growth had begun to caseate and break down in the centre. A year ago the tuberculous deposit had spread through to the left side, appearing there as a pale pink uneven outgrowth. She was treated with repeated curetting and application of lactic acid to the septum and inferior turbinal on either side. She also had three injections of Koch's tuberculin about a year ago. The patient had come under Dr. Thomson's care six months ago. She then had a perforation of the cartilaginous septum, pale indolent ulceration of both inferior turbinals, and in the centre of the buccal pharynx was a flat swelling about the size of a shilling with an ulcerating surface. There was an adhesion between the left inferior turbinal and the septum, and the perforation in the septum was surrounded by pale hypertrophic tissue covered by crusts. A portion of this was removed with a snare, and the sections—which were placed under the microscope—showed it to be infiltrated with tubercle, the giant-cell systems being well marked with foci of caseation. Sections were stained and examined for tubercle bacilli, but after prolonged search no bacilli were detected. Applications of lactic acid set up some reaction and excited adhesions between the opposite sides, so that everything was abandoned locally except cleansing alkaline lotions. The upper part of the pharynx being atrophic from the interference with the normal functions of the nose daily applications of Mandl's solution of iodine and iodide of potassium were ordered. Under this treatment the pharynx had considerably improved; the tuberculous thickening had shrunk considerably, while the abraded surface was not as large as a threepenny-piece. The improvement to the pharynx was so decided that the same iodine preparation was applied to the inside of the nose, pledgets of cotton-wool being soaked in it and left *in situ* on either side for from five to ten minutes. The patient was healthy-looking and there was no trace of trouble in her lungs. She had admitted being addicted to the habit of picking her nose, and he suggested that this had opened the door to infection. — Dr. SCANES SPICER said that he had examined the nose and could not satisfy himself that the lesion was tuberculous. There was much hypertrophic growth about the septum, but it did not appear to be more than ordinary granulation tissue, which it would relieve the patient to have removed.—Dr. KINGSTON FOWLER protested against an absolute diagnosis that a tissue was tuberculous if, as in this case, no tubercle bacilli were found. Structures indistinguishable from typical "tubercle follicles" were found in other conditions. It had been mentioned that tubercle bacilli were usually present in the nostrils, but he thought that this was open to question.—Dr. WHITFIELD thought that the fact that the patient had reacted to Koch's "old" tuberculin was in favour of the lesion being tuberculous. He suggested that Koch's "new" tuberculin should be tried.—Dr. ST. CLAIR THOMSON, in reply, remarked that in lupus there was often the greatest difficulty in demonstrating the tubercle bacillus. In his case he thought that the pathological and clinical evidence justified a diagnosis of tubercle.

Dr. ST. CLAIR THOMSON also showed a man with a very distensible Nævus of the Frontal Region, with Defect in the Subjacent Bone. The patient was a man, fifty years of age, and in the centre of his forehead was a vertical, depressed, bluish, cicatrix-like surface, about half an inch in length and a quarter of an inch in width. Beneath its surface the smooth, level frontal bone could be felt to be replaced by a depressed surface, which was rough and tender. To the left of this, starting from above the left of the glabella and passing obliquely upwards and outwards for one and a half inches, the skin was seen to be bluish and wrinkled, with a central, somewhat puckered depression. On palpation the bone immediately below this nævus was felt to be hollowed out, the rough floor of the hollow being some depth below the ordinary level of the frontal bone and very tender to the touch. When the patient talked this blue depressed surface was seen gradually to unfold itself and to rise above the level of the adjoining skin; if he strained in any way or blew his nose it swelled out into a round, blue tumour as big as a pigeon's egg. The patient had himself observed that it was always very prominent if he got in a passion. The smaller central nævus also became prominent, but to a lesser degree. There was no pulsation or thrill over this nævus. It was thought at first that there might be a complete defect of the anterior wall of the frontal sinus, and that the swelling was due to the distension of the frontal sinus with air, but there was no tympanic resonance over the swelling, and it could not be distended with air inflated into the nose with a Politzer's bag while the patient swallowed or held his breath. He was therefore disposed to think that either the whole of the anterior wall of the frontal sinus was not affected or else that this curious defect in the bone was not situated over the frontal sinus, but that it involved only the outer table of the frontal bone higher up than the situation of the sinus.

Dr. BERTRAM ABRAHAMS showed a child, two years of age, suffering from Hemiplegia. The hemiplegia occurred during the first few days of whooping-cough, but at the time the cough was by no means severe. The onset was sudden. One evening she was seized with an attack of right-sided convulsions and was unconscious; the pupils were dilated and insensitive to light, and there was marked nystagmus. There were several slight convulsions on the following day. The temperature during the convulsive attack was 103° F. A day or two later she presented complete right hemiplegia and aphasia. There was at present partial hemiplegia, more recovery having taken place in the leg than in the arm. The heart was normal, but there was slight albuminuria. Dr. Abrahams thought that the balance of evidence was more in favour of hæmorrhage than embolism. — Dr. G. A. SUTHERLAND recalled a case in which the onset was very like that described in this case, but which turned out to be one of tuberculous meningitis with an acute onset. He thought that hæmorrhage in the brain often occurred when the cough was of quite moderate intensity.

Dr. JAMES COLLIER showed for Dr. BUZZARD a man, thirty years of age, suffering from Paraplegia with Multiple Subcutaneous Tumours. Two years previously the patient complained of pain and stiffness in the left leg and afterwards in both legs. The paraplegia had slowly increased since that time. Soon after the onset painless nodular subcutaneous tumours developed and slowly increased, becoming as large as a Spanish nut. They were situated over both trochanters, over the ulna on both sides, and over the right external malleolus on both sides. Under iodide of potassium the nodules over the ulna and the fibula had disappeared, but those over the trochanters had persisted. In addition to the spastic paraplegia there was some loss of control over the sphincters and there was anæsthesia over areas corresponding to the fourth and fifth sacral and fifth lumbar roots on the left side. A history of syphilis could not be elicited, but there was evidence of past iritis. The administration of large doses of mercury and iodide of potassium during the last month had not been followed by any improvement in the paraplegia or any diminution in the size of the tumours.—The PRESIDENT regarded the case as one of syphilitic disease of certain adventitious bursæ. Under iodide of potassium such tumours usually subsided to some extent, although they rarely disappeared.—Sir DYCE DUCKWORTH also thought that the case was one of late syphilis.

Dr. PARKES WEBER showed a curious case of One-sided Blushing on Eating. The patient was a young man who exhibited a curious localised blush on the left cheek on eating associated with sweating over the corresponding area. The blush involved the ear, which, however, did not perspire. Mere masticatory movements did not produce the blush, but putting vinegar into the mouth without moving the jaws brought it out. The patient had formerly a suppurating gland behind the ear, and Dr Weber presumed that some of the vaso-constrictor branches of the cervical

sympathetic were involved in the scar, so that when the parotid gland became distended under the stimulus of mastication it dragged upon or compressed these branches.

Mr. L. A. DUNN showed a man, fifty years of age, on whom he had performed Pylorectomy for Cancer of the Pylorus. He was admitted with an enormously distended stomach, and on palpation a tumour was felt in the region of the pylorus. On cutting down a growth the size of a small orange, which was quite free, was found and removed, and then, closing the divided end of the stomach, a communication was established with the duodenum by the aid of a Murphy's button. This was passed without difficulty on the eighteenth day, and the patient recovered without giving them any anxiety. He had since gained three stones in weight, and was apparently in perfect health.

Mr. ABBOTT showed a lad, sixteen years of age, a patient under the care of Mr. Clutton, suffering from Symmetrical Coxa Vara. He presented nothing peculiar in his gait until about a year ago, when, a few days after a fall from a van which did not give rise to any obvious pain or injury at the time, he began to experience some difficulty in walking. The stiffness in the hips had increased so that in the course of three months he had to give up work. He now only complained of stiffness, and he walked with a kind of waddle, with everted knees. There was symmetrical eversion of the lower limbs, with great limitation of inversion, flexion, and especially of abduction, while adduction had remained quite free. The great trochanter was not above Nélaton's line. There were no creaking in the joints, no osteophytic growths, and no pain on palpation or movement. Skiagraphs showed that there was shortening of the neck of the femur. He regarded it as a case of coxa vara coming on in adolescence.—Mr. MAKINS observed that in genu valgum of adolescents the bone was usually very soft and largely decalcified.

HARVEIAN SOCIETY OF LONDON.

The Use of Large Doses of Creosote in Phthisis.—Unusually Large Tuberculous Glands.—Varicose Veins in Both Legs complicated with Eczema.—Arthritis.—"Massage Chain."

A MEETING of this society was held on Oct. 21st, Dr. MILSON, the President, being in the chair.

Dr. CLIFFORD BEALE read a paper on Recent Experience of the Use of Large Doses of Creosote in Consumptive Cases, and gave an account of a series of cases of incipient tuberculous disease of the lung and another series of the more chronic forms of disease. The patients had been treated with doses of pure beechwood creosote dissolved in cod-liver oil, beginning with three or five minims, the same amount being added to the previous dose every alternate day until a maximum of 180 or 160 minims per diem was reached. He had found that of all the methods of giving the drug this appeared to be the least objectionable to the patient. The results achieved had been highly satisfactory and in some cases most striking, the most marked effects being produced when the larger range of dose was reached. The fall in temperature, gain of weight, and general subsidence of symptoms had in many instances been surprising, and seemed to be more definite and lasting than the degree of improvement commonly observed as the result of hygienic treatment only. Contrary to expectation, no complaint was made by the large majority of the patients of the smell of the drug, and it was probable, both from clinical observation and chemical experiment, that the creosote was very rapidly broken up in the stomach, possibly forming a more stable compound, in which form it was excreted very freely and rapidly by the kidneys. Its presence could only be detected in the urine after further distillation with strong sulphuric acid. In many instances the patients passed blackened or greenish urine, but it could not be ascertained that either the quantity or chemical composition of the urine was otherwise materially altered, and there were no unpleasant symptoms attending the altered colour of the excretion. Further chemical investigation was, however, necessary to explain some of the changes which the drug undergoes in the body. As a result of purely empirical use it appeared that an amount of success was to be obtained by its employment, especially in the early cases, which was quite equal to, if not better than, the results obtained by the more specialised preparations such as guaiacol and its carbonate, and it was evident that it could be well tolerated when dissolved in cod-liver oil, and hence the painful and unpleasant methods of introduction, such as subcutaneous or rectal or tracheal injection, were rendered unnecessary. The drug was not to be regarded as in any sense a specific remedy for the disease, but rather as a valuable adjunct to the many existing methods of hygienic treatment at present in use.—Dr. ST. CLAIR THOMSON said that his personal experience was limited, and if he were to quote it it would doubtless show that every patient who had recovered or improved had taken creosote. But whether such patients recovered because they were taking creosote, or in spite of having had that drug prescribed, would be a very difficult question to answer. However, he was able to quote the much more valuable experiences which he had heard of this summer when visiting the well-known sanatorium for phthisical patients founded by Dr. Dettweiler at Falkenstein in the Taunus Mountains. The patients in this institution belonged to the well-to-do classes, and the resident physicians had most exceptional opportunities for observing the effect of any drug. Creosote had there been given a thorough trial, and had now been completely abandoned along with tuberculin and all other specific remedies. Small doses were occasionally given, but merely for their effect on the digestive system. Treatment at Falkenstein was entirely symptomatic, and general dietetic and hygienic influences were the only remedies relied on. He suggested that in Dr. Beale's cases the improvement might be due to the rest and good food which the patients obtained in the well-ventilated wards of a chest hospital. Before attributing any virtue to the creosote it would be necessary to see the results obtained in an equal number of similar cases, treated in exactly the same way, but with the creosote omitted.—Dr. STAMFORD G. FELCE inquired whether Dr. Clifford Beale used creosote of any particular manufacture, as he had found the results vary greatly with different specimens of the drug, which, though occasionally well borne, was in a large percentage of cases not tolerated by the stomach. As commercial creosote is a more or less variable mixture, containing toxic cresols, paracresols, and pyrogallol, it seemed to him more rational to use a drug which, possessing equal efficiency, is of a definite chemical constitution—a condition that is fulfilled by guaiacol carbonate; in a fairly large series of phthisical patients he had found this drug well tolerated, and in suitable cases frequently beneficial.—Dr. WILLIAM SQUIRE, Dr. CLEVELAND, and others also took part in the debate.

Mr. EDGAR G. BULLEID showed a case of Unusually Large Tuberculous Glands removed by him from the Right Axilla in a young man, aged twenty-three years.

Dr. ALFRED EDDOWES showed a case of Varicose Veins in Both Legs complicated with Eczema. The patient, a young man, had had several veins excised a few years ago at King's College Hospital with little or no benefit. Dr. Eddowes therefore wished to know whether surgeons had found excision of such veins so generally satisfactory as to justify him in urging this patient to submit to further operation, notwithstanding the first disappointment. If those present could not hold out good hopes of success he intended to adopt a plan of his own which had given him good results. Having cured the eczema—an easy matter in this case—he would cleanse the skin, dust it over with a permanent antiseptic such as calomel, and apply well-fitting elastic stockings, to be worn night and day for two or three months without intermission.

Dr. KNOWSLEY SIBLEY showed a case of Arthritis in a man, fifty-nine years of age, who had been sent to him at the North-West London Hospital by Dr. Macevoy for the Tallerman hot-air treatment. As a small child the patient suffered from scrofulous disease of both hip-joints, which had left scars from healed sinuses over both greater trochanters. When seven years old he went to work in a brickfield and was able to run and jump as well as any boy of his age. He continued at heavy labourer's work until last spring, when he found his hips were becoming stiff and he was unable to bend down as formerly. He was soon compelled to give up work and had been getting gradually worse ever since. At the present time the patient had little or no pain, but he could only just raise his feet from the ground; he walked with his back bent forward from the lumbar region, and was unable to cross his legs when sitting down. He had had only three baths and said that his movements were already much freer and he was able to get about better.

Dr. SIBLEY also showed a new apparatus known as a "Massage Chain," which had been sent to him by a friend

in Germany some six months ago, and he had given it a trial at the hospital. The chain consisted of a series of small revolving wooden balls with a handle at either end. It was used by holding one handle in each hand and giving a to-and-fro movement over any part of the body to which it was desirous to apply massage.

OPHTHALMOLOGICAL SOCIETY.

Some Experiments on the Union of Corneal Wounds.—Dislocation of Lens; Couching; Recovery.—Exhibition of Specimens.

THE first general meeting of this society for the present session was held on Oct. 21st, Mr. H. R. SWANZY, President, being in the chair.

After thanking the society for the honour conferred upon him in his election to the Presidency, Mr. SWANZY proceeded to consider some Congenital Cases of Disturbed Association of Muscular Action, Coloboma, and Microcephalus with Proptosis, the last being illustrated by lantern slides.

Mr. ERNEST CLARKE related the results of some Experiments on the Union of Corneal Wounds, consisting of various operations on the cornea of rabbits whereby the anterior chamber was completely emptied of aqueous with the view of ascertaining the time taken by these wounds in uniting sufficiently to allow the anterior chamber to be re-formed. Descriptions of the methods adopted in operating and preserving the specimens were given. Two classes of experiments were performed. In the first class the animal was kept under an anæsthetic and killed. The anterior chamber was found to be present in two minutes, and fully re-formed in twenty-five minutes. In the second class the animal was allowed to recover and, after varying intervals, ranging from half an hour to two and a half hours, again placed under an anæsthetic and killed. The movements of the animal caused delay in the re-formation of the anterior chamber. The average time was one and a half hours. Wounds at the upper margin united most rapidly with less scar. Wounds across the centre of the cornea and at the lower margin took longer to repair and made a larger scar. The rapidity with which the anterior chamber was re-formed suggested that, if during an operation on the eye where the presence of the aqueous was necessary, this aqueous were accidentally lost, the eye should be bandaged and the continuance of the operation postponed only for half an hour at the outside, instead of postponing it until the next day as was generally done. The experiments also showed the great influence that rest had on the process of repair, and emphasised the importance of keeping patients absolutely quiet for the first few hours after an eye operation. The PRESIDENT, commenting on the value of these experiments, said that their interest would have been still further increased if it could have been determined how soon a wound in the cornea, which had undergone primary adhesion, became impervious to the entrance of infective organisms.—In reply to questions by Dr. ARGYLL-ROBERTSON, Dr. BATTEN, Mr. P. SMITH, and Mr. D. MARSHALL, Mr. CLARKE said that the size of the wound was that of a full-sized keratome, 4 to 6 mm.; the eyes were looked at within a few minutes of the incision and conjunctival flaps had been avoided in order not to complicate the experiments.

Mr. T. H. BICKERTON related a case of Congenitally Misplaced Lenses, which became dislocated spontaneously into the anterior chamber. Couching was followed by recovery of perfect vision. The patient was a male, aged twenty-eight years. He had been short-sighted since infancy; at fourteen years of age he had attacks of giddiness, which caused him to fall and injure his forehead. At the age of nineteen years he began glasses: R −6·5 D., L.−6 D. He was first seen in December, 1887. At that time the iris was tremulous; the lens was dislocated into the vitreous in each eye: V. R c. + 10 D. = $\frac{6}{9}$; L.c +10 D. = $\frac{6}{9}$. On reading the refraction was entirely different: J. 1 at 3½—4 in.; he looked through the displaced lens. In 1893 he suddenly went blind in the left eye, but the vision was restored next morning. He had two more attacks of the same nature afterwards; during the last one eserine was used, and the eye did not recover as it had previously done. When seen after this occurrence in December, 1893, there were pain and congestion and the clear lens nearly filled the anterior chamber. The unsatisfactory results obtained from extracting such lenses and the knowledge that these lenses had been tolerated so long in the vitreous suggested to Mr. Bickerton the alternative of reposition. On Dec. 30th, 1893, this was done; the pupil was dilated, an incision at the margin of the cornea was made with a keratome, to evacuate the aqueous it was attempted to press the lens back through the pupil by the finger applied to the closed lid; this could not be done and a spatula was introduced into the anterior chamber; the lens then slipped back into the vitreous. Perfect recovery followed, and in June, 1897, three years later, the vision of the eyes was R c. + 12 D $\frac{6}{9}$ ptly, $\frac{\text{L.c} + 12\text{ Ds.}}{-75\text{ D cyl.}} = \frac{6}{9}$. The interest of the case lay in the fact that blindness followed the use of eserine, which prevented the lens from passing back again into the vitreous, and the fact that the eyes have remained perfectly healthy, although the lenses had been dislocated into the vitreous for nearly four years.

The following cases and card specimens were shown:—

Mr. ADAMS FROST: Odell and Porter's Centreing Instrument for Ophthalmic Lenses.

Mr. ARNOLD LAWSON: Leuco-sarcoma of the Choroid.

Dr. RAYNER BATTEN: (1) Foreign Body found Impacted on the Optic Disc after Removal of Traumatic Cataract; (2) Pulsating Tumour of the Orbit, ? Meningocele.

Mr. J. F. BULLAR: Case of Deficiency of the Choroid.

Mr. LANG: Primary Syphilitic Lesion of the Inner Canthus.

LIVERPOOL MEDICAL INSTITUTION.

Ileum Strangulated by Passage through a Congenital Mesenteric Hole.—Excision of the Kidney for Primary Carcinoma.—The Typhoid Serum Reaction in Doubtful Cases of Fever.—Clinical and Statistical Evidence of the Value of Antitoxin in the Treatment of Diphtheria.

A MEETING of this society was held on Oct. 21st, Dr. RICHARD CATON, President, being in the chair.

Mr. STANLEY KELLETT SMITH related a case of Ileum Strangulated by Passage through a Congenital Mesenteric Hole, an account of which is published elsewhere in our present issue.

Mr THELWALL THOMAS related a case of Excision of the Kidney for Primary Carcinoma. He exhibited a patient from whom he had removed the right kidney for primary carcinoma. The man, aged thirty-nine years, said that his urine had been coffee-coloured two years ago. Occasional attacks of hæmaturia occurred in the last twelve months and he steadily lost weight. A month ago he fell, striking his right side. He immediately passed half-a-pint of bloody urine and clots; after this he passed no urine for three days. His temperature oscillated, suggesting suppuration. The tumour was large and occupied the kidney area and the right iliac fossa. Operation was performed as follows. A transverse incision immediately under the last rib was made, exposing the kidney, and rapidly enlarged forwards, peeling the peritoneum off the kidney. The tumour, which weighed 2 lb. 2 oz., was removed. The microscope showed a carcinoma with large cells, as seen in suprarenal rests. The patient had gained about 2 st. in weight since the operation.—Dr. E. T. DAVIES remarked that by the transperitoneal incision it is possible to examine the condition of the other kidney, which was a matter of the greatest importance.—Mr. F. T. PAUL said the microscopical characters of the tumour were those usually observed when cancer commenced in the glandular structure of the kidney. He thought the character of the cells, their arrangement, and the presence of cysts pointed to origin in the true renal tissue rather than in adrenal rests.

Mr. RUSHTON PARKER related a case of Carcinoma of the Kidney where he removed the kidney, the patient making an easy recovery; recurrence occurred, however, in about two months.—Dr. ALEXANDER also made some remarks.

Dr. CARTER read a note on the Typhoid Serum Reaction in Doubtful Cases of Fever. He related two cases of fever; both were thought, when first seen, to be cases of typhoid fever, the serum in each giving, with a solution of 1 to 30, a markedly positive reaction with Widal's test. Yet both terminated on the sixth and eighth day respectively in recovery. The results must show either, as he believed, that we must enlarge our conceptions of typhoid fever or that the test was applicable to other febrile conditions. In another case there was no reaction on the seventh day, but a marked one on

the ninth after the introduction of typhoid antitoxin. Yet the serum of a patient suffering from appendicitis into whom a similar dose of typhoid antitoxin had been injected was entirely negative in its reaction, as was also Dr. Carter's own blood when mixed out of the body with a small proportion of the antitoxin and diluted.—Professor BOYCE said that the vast majority of cases of typhoid fever give the reaction. There were two important questions: (1) Does absence of reaction preclude typhoid fever? and (2) does a positive indication always signify typhoid fever? In answering the first question he mentioned (1) retarded reaction; (2) one or two cases of typhoid fever have given reaction when the absence of the typhoid bacillus has been proved; and (3) absence of reaction has been justified by necropsies. The answer to the second question is an almost unqualified affirmative.—Dr. N. E. ROBERTS said that it was disappointing to the physician to come across cases where the serum test did not answer. He had four such cases at present in the wards of the City Hospital. Three were undoubtedly typhoid fever, and he believed the fourth was, yet the result of the serum test was entirely negative. In the large majority of cases, however, the results were highly satisfactory and the test a valuable acquisition.—Dr CATON, Dr. BARR, and Dr. STANLEY-GILL also discussed the subject.

Dr. E. P. MANBY read a paper on Some Clinical and Statistical Evidence of the Value of Antitoxin in the Treatment of Diphtheria. He had tabulated about 10,000 cases which had been treated at the Metropolitan Asylums Board Hospitals. He drew attention to the early experiments of Behring and Wernicke with antitoxins, and quoted from Roux's paper on the antitoxic treatment of diphtheria at the Budapest Congress. He then mentioned the introduction of the treatment into the metropolitan hospitals, and drew attention to the death-rate before and after the introduction of the antitoxin. He then discussed the question of dosage, and drew attention to the fact that the amount of the antitoxin to be used must be gauged by the severity of the disease and not by the size or age of the patient. He then mentioned how the ordinary course of the disease was modified and how the sufferings were mitigated by the antitoxin injections. He also mentioned the dangers of the injections themselves. The statistical examination of the subject was highly favourable to the treatment.—Dr. N. E. ROBERTS remarked on the relatively small number of cases of diphtheria in Liverpool hospitals as compared to London. He agreed that the serum treatment had reduced the mortality, especially in laryngeal cases. His figures, although too small to be of much value, supported Dr. Manby's views.—Dr. HOPE attached greater importance to careful observation than to deductions drawn from statistics. Although, happily, diphtheria was relatively much less prevalent in Liverpool than in London, the Hospitals Committee of the City Council had made provision for a gratuitous supply of diphtheria antitoxin.—Dr. CARTER, Dr. HUGH JONES, Dr. MACALISTER, Dr. PERMEWAN, Mr. BLAKEMAN, Dr. P. DAVIDSON, and Dr. LOGAN joined in the discussion.—Dr. MANBY replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

President's Address.—Exhibition of Cases and Specimens.—Injuries Produced by Cycling.—Treatment of Surgical Tuberculosis.

THE opening meeting of this society was held at the General Infirmary, Leeds, on Oct. 15th, Dr. BRAITHWAITE, President, being in the chair.

The PRESIDENT read a paper entitled "Is there any Principle or are there any Principles, Scientific or Practical, in the Treatment of Disease?"

Mr. STOTT showed a woman who on six occasions had been Exposed for about forty minutes to the X Rays for the Diagnosis of Spinal Caries. Two days after the last exposure severe pain occurred over the sternum followed in eight days by a circular ulcer six inches in diameter. In seven months this had lessened to an area three inches by two inches, and this Mr. Stott had successfully treated by two plastic operations.

Mr. W. H. BROWN showed: (1) A case of Paraplegia following Spinal Caries; laminectomy; (2) Amputation through the Hip joint for Sarcoma; and (3) Aneurysm of the Femoral Artery after Ligature of the External Iliac.

Dr. TREVELYAN showed a Hand Centrifugal Machine for obtaining Deposits for Microscopical Examinations, with Specimens.

Mr. KNAGGS exhibited specimens from two cases of Excision of the Knee, Tuberculous and Osteo-arthritic.

Dr. HELLIER showed Secundines and Fœtus from a case of Triple Pregnancy.

Dr. WARDROP GRIFFITH showed: (1) Large Cerebral Hæmorrhage from a patient who presented General Atheroma with Cardiac Hypertrophy and Evidence of Old Embolism of the Kidneys; the kidneys were not granular (Dr. Barr's patient); and (2) Specimen of Communication between the Hepatic Flexure of the Colon and Second Part of the Duodenum from Malignant Disease of the Former. The symptoms were those of collapse and fæcal vomiting without distension of the abdomen and typhlotomy was performed (Mr. Robson's patient).

Mr. E O. CROFT showed a case of Recovery with Movable Joint after Incision of the Knee for Acute Suppurative Arthritis.

Dr. CHURTON showed a specimen of a Tumour of the Middle Lobe of the Cerebellum and read notes of the case. In July or August, 1896, a child, two and a half years of age, a member of a delicate and tuberculous family, vomited, staggered, and in a few days became unable to walk. She soon became nearly blind, but the pupil reflexes remained. The arms were not at first affected. She was admitted into the Leeds Infirmary on May 26th, 1897. The head had enlarged recently. No hemiopia had been observed; there was no pyrexia; no disease was found in the other organs; and there was no wasting of the limbs. The child was usually very quiet, but at times fretful. There was double optic neuritis. On April 7th the right face and arm were almost icy cold; the left was of normal temperature. On April 13th the right face was flushed and hot; the left was pale and cold. Vaso-motor reflexes were not distinctive. The legs were rigidly extended; at times she drew up the left thigh and bent the knee, the foot being still extended. She never drew up the right knee. Plantar reflexes were present, the right being greater than the left. There was no ankle-clonus. Patella reflexes were present. Vesical and rectal reflexes were normal; she gave no notice of either being about to act. On June 26th the fontanelles and sutures were reopened; the posterior fossa (occiput) greatly bulged towards the neck, but the frontal region was not enlarged. There was general hyperæsthesia at times, also there were frequent cries and screams as if from paroxysms of pain. Exalgine appeared to prevent those paroxysms for a few hours. On June 28th the thumbs were drawn across the palms, the fingers were flexed, the legs were hyper-extended, the knees were locked, the legs were spread out each to an angle of 25° with the thigh (apparently by action of the outer hamstring muscles), and the left thigh was turned outwards by a rigid tensor fasciæ femoris. On July 9th the right lateral ventricle was tapped through the sagittal suture; 1½ oz. of clear fluid were drawn off. Tapping was repeated on July 18th and 30th, and on Aug. 9th and 16th, on return of the signs of pain. Complete relief always followed; but emaciation became very marked and death occurred early in September. A sarcoma as large as a Tangerine orange occupied the position of the middle lobe of the cerebellum, the upper part of the lobe formed a roof, while the lateral lobes appeared like easily separable encysting walls for the growth. Chronic tuberculous disease was found in some of the mesenteric glands.

Mr. LITTLEWOOD showed a boy, aged five years, upon whom he had operated on June 12th for Acute Suppurative Arthritis of the Left Hip. An incision was made over the front of the joint and fifteen ounces of pus escaped. The head of the femur and acetabulum were quite devoid of cartilage. The joint was drained and dressed with iodoform. On Aug. 12th the incisions were opened again as the joint was not draining well. The incisions had healed and the patient was walking about with an ankylosed hip.—Mr. LITTLEWOOD also showed a Hydatid Cyst with its investing Capsule, of about the size of a goose's egg, which he had removed from the edge of the left lobe of the liver of a woman aged forty-eight years. The cyst was adherent to the omentum and the anterior abdominal wall. Before operation it was thought to be a mass of malignant disease. The patient has made a good recovery.

Mr. W. H. BROWN read an interesting paper on Certain Injuries produced by Cycling and reported several cases where patients had suffered from pain around the anus, in

the testicles, and inner side of the thighs. In some cases there was extravasation of blood under the skin, in others the penis became insensitive and there was retention of urine. Most of the riders were of the male sex. Mr. Brown attributed the condition to the use of badly fitting saddles and advised would-be riders to pay attention to this most important part of the machine. All his patients recovered with rest and sedatives.

Mr. MAYO ROBSON read a paper on the Treatment of Surgical Tuberculosis, such as psoas abscess, tuberculous joints, tuberculous abscesses connected with the ribs, tuberculous disease of the vesiculæ seminales, &c., which he had been treating for a number of years by iodoform injections with very satisfactory results. He described the details of the methods he employed, and pointed out how in one class of cases—viz., tuberculous joints—operations at the Leeds Infirmary for excisions had fallen from sixty-three in 1891 to thirty-three in 1896, although a much larger number of cases had been treated. He attributed this change to the large number of cases that were now being successfully treated by iodoform injections. He dwelt on the great importance of strict asepsis in performing the operation, and remarked that even if no good were done no harm could follow; but according to his experience benefit had accrued in nearly every case, and in many cure had resulted.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimen.—President's Address.

THE first ordinary meeting of the session was held on Oct. 15th in the Medical Institution, Hope-street, Liverpool, the President, Dr. BRIGGS, being in the chair.

Dr. T. B. GRIMSDALE (Liverpool) showed a Uterus, with large, soft, rapidly growing fibroid, removed by abdominal hysterectomy.

The PRESIDENT delivered his inaugural address, the subject being "The Diagnosis of Cancer of the Uterus in its Early Stages." In his address Dr. Briggs dealt with the causes of delay in gynæcological and general practice in completing the diagnosis in cancer of the uterus. He observed that the argument of the senior gynæcologists against the introduction of vaginal hysterectomy into this country appeared to be still valid—viz., the difficulty in making a diagnosis in the early stages of uterine cancer. The mortality of operations has diminished, but the fact is still with us that the cancerous disease has advanced beyond the uterus before the radical operation is performed. The surgeon, he held, must deplore the haphazard methods of treatment, the attempts at cure by the curette before the diagnosis can be complete, and the consignment of curettings to the sink rather than to the pathological laboratory. The utility of the microscope cannot be seriously doubted except in a few of the adenomata; the ordinary carcinomata can be detected earlier by the microscopical than the clinical methods. By way of illustrating the address thirty micro-photographs of adenomata and carcinomata were shown by the lantern. The gradation in the structural characteristics between the malignant adenoma and the normal glands were shown. The corresponding clinical histories were related and in several instances years had elapsed; malignant cases had died; non-malignant cases had been tested by time. He drew attention to the one solitary stratified squamous carcinoma of the body of the uterus; similar cases had been described by others from time to time; then he pointed out in another carcinoma the gradation from glandular columnar cells to stratified squamous patches according to the cancerous alveoli. There seemed to be no good reason for retaining the term "adeno-carcinoma," which was often used for malignant adenoma and for ordinary carcinoma of glandular origin, and difficulties of comparison were introduced. Sections of glandular and papillary erosions in suspicious cases were also exhibited. Naked-eye water-colour drawings from the recent specimens showed in most instances advanced cancerous growths of the body of the uterus and of the cervix; two of the latter were examples of cancer, starting first below the internal os. One of the latter had been twice curetted and "villous" endometritis was believed to exist. In many other instances the curette had been used, but not for an exploratory purpose, which, from the point of view of all concerned, was to be regretted.—Dr. LLOYD ROBERTS (Manchester) proposed, and Dr. MACFIE CAMPBELL (Liverpool) seconded, a vote of thanks to the President, which was carried with acclamation.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—The Value of Bacteriological Research in the Diagnosis of Infectious Disease.

THE opening meeting of this society was held on Oct. 3rd, the retiring President, Mr. GODFREY CARTER, being in the chair. After the election of officers—

Dr. EURICH gave a Microscopical Demonstration.

Dr. GLADSTONE showed a case of Extensive Necrosis of the Cranial Bones, probably syphilitic in origin.

Mr. MCGEE related a case of Broncho-pneumonia which had pursued a very unusual course.

Dr. METCALFE showed a large Enterolith from a Horse.

Dr. CHAPMAN showed a specimen of Epithelioma of the Sigmoid Flexure. The case had presented itself as one of extensive abscess of the thigh pointing above the knee. When opened gas and fæcal pus escaped. The patient slowly sank and at the necropsy the condition exhibited was found.

After a vote of thanks to the retiring President, the President-elect, Dr. ARNOLD EVANS, took the chair and read a paper on the Value of Bacteriological Research in the Diagnosis of Infectious Disease, particularly in relation to Cholera, Typhoid Fever, and Diphtheria. Dr. Evans pointed out that some difficulty had been experienced as to the significance properly attaching to the results of bacteriological examination in the diagnosis of cholera, and expressed the opinion that, so far as at present known, Koch's comma bacillus was not found in the intestinal evacuation in any disease except cholera. It was therefore possible to decide by bacteriological examination whether any particular case was true cholera or not and to give a direct negative or affirmative opinion on the nature of any material examined. As to the assistance given by bacteriological examination in the diagnosis of typhoid fever, Dr. Evans observed that it was twofold—viz.: (1) the recognition of the Eberth-Gaffky bacillus in the bowel discharges: and (2) the effect produced by toxines contained in the body on the life and growth of cultures of the typhoid bacillus, as shown by Widal's reaction. He combated the view put forward some years previously that the bacillus coli communis could obtain under any conditions the pathogenic properties of the bacillus typhosus, and described the points of difference between the two organisms. After discussing the significance of the Klebs-Löffler bacillus in reference to diphtheria and other throat affections he showed a number of cultivations of microbes on agar and other media from the throats of patients suffering from whooping-cough, scarlet fever, croup, and enteric fever. The growths consisted of various kinds of micrococci, streptococci, and saccharomycetes.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

Presidential Address.—Annual Report.

THE annual meeting of this society was held on Oct. 13th in the medical library of University College, Bristol, Dr. J. E. SHAW being in the chair.

Dr. SHAW gave his presidential address on Some Points in Lunacy Practice in Relation to the General Practitioner. In the course of his address he remarked that the diagnosis of insanity is not a special or even medical process under the present state of our law, and that while every practitioner is now liable to be called upon to sign certificates there appears to be fairly adequate protection if the medical man is careful to act with due caution and with good faith. He thought that the present system of keeping lunatics of every mental grade in asylums led to an expenditure upon asylum buildings vastly in excess of what was necessary. He regretted that the present state of the law did not allow many classes of persons medically insane to be legally certified. He thought that it was desirable in accordance with the practice which obtained in Scotland that in this country also temporary certification should be made lawful,

and that hospitals for temporary retention should be established in the larger towns.

Mr. BUSH (honorary secretary) read his annual report, which showed a balance in hand of £108 8s. 1d, with a membership of 134. He referred to the lamented death of Mr. Greig Smith and mentioned that a movement for providing a fitting memorial had been started to perpetuate his memory.

Dr. ROGERS (editorial secretary) read his report.

Mr. L. M. GRIFFITHS (honorary librarian) read his report which showed that in the Bristol Medical Library there were now 16,682 volumes and 206 current periodicals.

The following officers were then elected:—President-elect: Dr. Roxburgh, of Weston-super-Mare. Honorary Secretary: Mr. Paul Bush. Honorary Librarian: Mr. L. M. Griffiths. Members of Committee: Dr. J. Michell Clarke, Mr. J. Dacre, Mr. W. H. Harsant, Dr. Rogers. Mr. Munro Smith, and Dr. Waldo. Library Committee: Mr. Paul Bush, Mr. L. M. Griffiths, and Dr. G. Parker.

WORCESTERSHIRE MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Cystic Kidney.—Hyperpyrexia.

THE quarterly meeting of this society was held at the Worcester General Infirmary on Oct. 19th, Mr. T. BATES being in the chair.

Mr. BATES showed (1) a man whose Fractured Patella was treated by Immediate Wiring, the result being bony union of the fragments, with perfect movement of the joint; (2) a man with Severe Varix of both Internal Saphenous Veins as high as the knee; (3) a case of Lingual Tumour; (4) a child recently submitted to Tarsectomy for Talipes Equino Varus (before operation the patient was treading on the external malleolus and cuboid bone, but was now treading flat on the sole); and (5) a Multiple (uterine) Fibroid Tumour removed a few days previously.

Dr. COOKE showed (1) a specimen of Aneurysm of the Basilar Artery and (2) a specimen showing a Plum-stone impacted in each Bronchus immediately below the Tracheal Bifurcation. They were removed from a woman who had been seized with an epileptic fit whilst eating an apple. She suffered from intermittent dyspnœa for twenty-four hours, at the end of which time tracheotomy was performed, but without relief, and she died shortly afterwards.

Dr. READ gave outlines of a case of Cystic Kidney admitted under his care and subsequently transferred to Mr. Budd for operation.—Mr. BUDD, Mr. BATES, Dr. CROWE, and Dr. SMYTHE made remarks, and mentioned other interesting renal cases that had been under their care.

Dr. CROWE related a case of Hyperpyrexia of Probable Rheumatic Origin, in which the axillary temperature was 110° F. Cold packing was resorted to, with a resulting rapid decline of temperature to 100° in three hours. The patient lived for five days, gradually becoming comatose and dying at the end of that time.—Dr. POLLARD made some remarks, mentioning a case which had been under his care in which the axillary temperature was 108·2° Rubbing with lumps of ice brought the temperature down to 99°, and it sank half an hour later to 96·6°. The man eventually recovered.—Dr. STANLEY HAYNES asked whether any of the members of the society had tried phenocoll, with which he had seen some very good results in the pyrexia of influenza.—Dr. CROWE replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Inaugural Address by the President.

A MEETING of this society was held on Oct. 14th, Dr. SINCLAIR WHITE being in the chair.

After thanking the society for electing him to be president Dr. White gave an address on the Progress of British Surgery during the Victorian Reign. In the sixty years under review remarkable strides had been made in almost every branch of knowledge, and surgery had participated in the general advance to a greater extent perhaps than the majority of other arts and sciences. This was all the more gratifying because in no field had the incentives to the labourer been less selfish. When the Queen ascended the throne Liston and Syme were the rising stars of British surgery—the harbingers of a period of surgical activity which had lasted until now. The introduction of anæsthetics in "the forties" and of antiseptics in "the seventies" were the two most notable features of the period. The former extended enormously the field of surgery, but it was accompanied by at least one drawback. It deteriorated the standard of manipulative dexterity which had probably attained perfection in the early Victorian years, and opened the door to incompetent and bungling surgeons. Lister's discovery of antiseptics was without exception the most important in its results in the history of surgery. It substituted definite knowledge for dark mystery and revealed the character of "septic infection" the surgeon's ubiquitous and most dreaded foe. Step by step the methods of controlling sepsis had been simplified and perfected, and almost imperceptibly antisepticism had given place to asepticism which is now the aim of every intelligent surgeon. By reason of Lister's discovery surgical operations had assumed the nature of laboratory experiments, in the performance of which it was possible to control the conditions, and if failure resulted it would in nine cases out of ten be due to ignorance or, worse still, to neglect of well-known principles. The recent advances in surgery had been possible only because of Lister's work. Of these the more brilliant concerned the cerebro-spinal system, while for variety and the frequency with which they are performed abdominal operations still held the first place. Every region of the body had been diligently prospected by the surgeon and made to yield its tribute to his invincible energy. The vast majority of new operations had been of real service to suffering humanity, but occasionally, in Dr. White's opinion, surgical enterprise had over-reached the bounds of prudence.

Reviews and Notices of Books.

Heart Disease, with Especial Reference to Prognosis and Treatment. By Sir WILLIAM H. BROADBENT, Bart., M.D. Lond., F.R.C.P. Lond., F.R.S., and JOHN F. H. BROADBENT, M.A., M.D.Oxon., M.R.C.P.Lond. London: Baillière, Tindall, and Cox. 1897. Price 10s. 6d.

THE study of cardiac disease has always had much attraction for the physician. The reason of this is not far to seek; it is bound up with the important office which this organ fills as the centre of the circulation, and the far-reaching results of derangements of its mechanism. As regards the heart itself, the field of observation, although confined within a small area, is so remarkably varied, and affords so much material of interest in the interpretation of signs, as well as in the correlation of lesions, that it is not surprising it should have been assiduously cultivated by so many skilled clinical observers. Gradually there has been built up a conception of the whole subject which for thoroughness and accuracy occupies a foremost position in scientific medicine. This result has been attained in large measure by the careful comparison of the signs manifested during life with the lesions observed after death, together with that of the facts of the normal action of the organ. Yet interesting or even fascinating as the study of valvular lesions is from the point of view of auscultation, the capacity for correctly making a differential diagnosis of such defects is only one part, and perhaps not the most important part, of the physician's aim. He has to determine the extent to which the heart muscle has been affected by the derangement of the valves, and to ascertain from the observation of secondary changes in other organs the amount of actual disturbance of the circulation that has been set up, so that some indication can be obtained as to the means best adapted to restore to the organ that compensatory power which happily it seems to possess in an eminent degree. Much has been done to increase our knowledge of cardiac diseases in every direction, and although from the nature of

their clinical study the field of facts has often been obscured by the mists of speculation, it is not too much to say that our vision has been made clearer and our deductions sounder by the labours of the many who have studied the subject from every point of view. There are still obscurities in the sphere of etiology, but in the matter of diagnosis we seem almost to have attained the possible limit, whilst in respect to prognosis the views of physicians have become remarkably modified through more rational and more exact inferences upon the precise extent of mechanical derangement that is presented. Finally, as regards treatment there is at the present day much more confidence than was possible at a time when the conditions of the circulation in heart disease were less well understood and the compensatory powers of the damaged organ less fully appreciated.

Amongst those who have contributed largely in our own day to the promulgation of rational views on this subject Sir W. Broadbent occupies an honoured place. The attention which he has paid to the clinical study of cardiac affections, and the wide experience which one in his position cannot fail to have gained, pre-eminently qualify him to speak with authority on the subject. The work before us—in the preparation of which he has been aided by his son, Dr. J. F. H. Broadbent—will therefore be certain of a cordial welcome; and we venture to add that this will be all the more cordial when it is found that the authors have not attempted to write an encyclopædic treatise on the subject, but have rather contented themselves with dealing with it from the strictly practical and clinical standpoint. There is indeed one notable feature in the book which deserves especial commendation, and that is the thoroughly reasonable manner in which the phenomena are interpreted, and that, too, in the fewest possible words. There are no elaborate disquisitions upon the precise significance of this or that sign, but a plain, straightforward acceptance of the view which seems to be most in accordance with the dictates of common-sense. It is this quality in the book which will render it very acceptable both to practitioners and students, for it constitutes the best kind of teaching—that which is definite and rational. The first chapter briefly describes the anatomical relations of the heart and the methods of its clinical examination with the signs revealed by them are tersely stated. The subject of valvular disease in general is then discussed in several chapters, and also that of their treatment. Then come more detailed descriptions of each individual valvular lesion; and chapters on congenital malformations, adherent pericardium, structural disease (hypertrophy and dilatation) of the heart wall, fatty degeneration, angina pectoris, and functional affections (so-called) of the heart. In an appendix is given a note on the Preparation of the Baths and on the Movements Practised in the Schott Treatment of Heart Disease.

Without attempting to traverse the whole ground covered by the authors, it may yet be of interest if we briefly notice some of the salient points in the work. In the first place, we would concur with the opinion that simple aortic stenosis is the least common of the four valvular defects of the left side, although aortic systolic murmurs due to conditions which are not accompanied by stenosis are relatively frequent. The observation that the loudness of a valvular bruit is often inversely as the amount of the lesion is one which is worth remembering; it is especially well exemplified in mitral stenosis. Another indication of the extent of the valve-lesion which is here pointed out is the persistence or not of the normal heart sound. This fact, the importance of which cannot be gainsaid, is illustrated in cases of aortic incompetence, when the persistence of an audible second sound in the carotid tends to diminish the sense of the gravity of a lesion inferred by a loud diastolic murmur in the aortic area. The accentuation of the pulmonary second sound indicating hypertrophy of the right ventricle points to the severity of a mitral lesion; and the view that reduplication of sounds is due to asynchronism[1] of the two sides of the heart is adopted by the authors without reserve. The characters of the radial pulse in each form of valvular defect are clearly described and illustrated by sphygmograms, and the cause of the irregularity of the pulse in mitral incompetence is fully discussed in the chapter dealing with that affection, where it is shown to be probably due to the varying intra-thoracic pressure due to inspiration and expiration influencing the amount of regurgitation into the auricle. In discussing the symptoms of mitral and aortic disease in general the causation of dropsy receives considerable attention. Whilst admitting the possibility of such factors as capillary deterioration and anæmic state of blood the authors clearly think that the mechanical view is sufficient to explain cardiac dropsy, and that the reason why dropsy is comparatively infrequent in cases of mitral stenosis is that the pressure on the arterial side is so much diminished in that affection as not to give rise to effusion of serum. The etiology of valvular diseases is fully discussed, and with respect to mitral regurgitation attention is drawn to the enfeeblement of the constricting muscle at the orifice of the valve as a factor in its production. Upon prognosis much valuable instruction is given both in the general section and in those chapters which treat of each of the individual lesions. Some highly interesting experiences are given as to the duration of life with valvular lesions, and the various circumstances that have to be considered in forecasting the prospects of longevity. The subject of treatment is judiciously dealt with and the value of exercise in cases of less severe lesions pointed out. Naturally, the lines of treatment introduced by Oertel and by Schott here fall to be considered. But in cases where there is failure of compensation to a severe extent stimulants may be needed and are of value; and there are some highly sensible remarks upon the indications for digitalis and other cardiac tonics. Having given a general survey of the subject of valvular disease the individual lesions are considered. Nor must it be thought that this is redundant. There are many points of great clinical interest discussed which will well repay perusal and careful study. We may just refer to one, and that is the occasional occurrence of a presystolic murmur in cases of aortic incompetence without mitral stenosis—"Austin Flint's murmur," as it is sometimes called. It is here suggested to be caused either by the vibration of the mitral cusp from the impact of the regurgitant eddy, or by this latter causing so complete a backward displacement of the cusp as to give rise to veritable mitral obstruction. The subject of mitral stenosis is treated with perspicuity, and the three stages or degrees of the lesion which can be clinically marked are well indicated. We would fain dwell more in detail on these and many other chapters of this most interesting work, but we have no doubt that it will be widely read and that it will be found most helpful, as well as satisfying, to its readers.

Lectures on Physiology: First Series on Animal Electricity. By AUGUSTUS D. WALLER, M.D. Aberd., F.R.S. London: Longmans, Green, and Co. 1897. Pp. 144. Price 5*s.* net.

DR. WALLER is the Fullerian Professor of Physiology at the Royal Institution, Albemarle-street, and a part of his duty is to deliver a course of twelve lectures on Physiology in the course of each year. This first series of lectures is a condensation of the twelve lectures he delivered as his first course. In his preface he feelingly deplores the few

[1] Since the issue of the work the publishers have drawn our attention to an erratum on p. 24, line 17, where the word "asynchronous" is printed "a synchronous," which the reader will at once perceive from the context to be an error.

and small advances that have been made in physiology by the previous holders of the chair, notwithstanding it has been occupied by men of high scientific attainments, and he attributes this failure to the circumstance that there is neither laboratory nor apparatus at the institution, nor does it "possess even one small room to keep itself alive," which is in remarkable contrast with the great advances that have been made in the other Fullerian professorship—that of chemistry and physics—by such men as Davy and Faraday and Tyndall, who have had command of a splendidly furnished laboratory and have been supplied with every means of furthering research. The first lecture is devoted to the demonstration of nerve and muscle currents, and Dr. Waller proposes two new terms—"zincative" to represent injured or active protoplasm, which is electro-positive; and "zincable" for resting electro-negative protoplasm. The second lecture commences with a description of some terms and of some instruments, and gives the results of the exposure of a nerve to carbon dioxide, to alcohol, and to tobacco smoke. He shows that nerve tissue is highly sensitive to the presence of carbon dioxide, which is not only a product of nerve action, but certainly facilitates nerve activity. In the fourth, fifth, and sixth lectures the effects of polarising currents are considered with an endeavour to render intelligible the phenomena of an- and cath-electrotonus. The lectures contain many facts of considerable interest, and they are not rendered less interesting by the author's acknowledgment of the difficulties he has met with in the preparation of the experiments and of his inability to explain some of the phenomena which he exhibits. It is satisfactory to think that the education of the Royal Institution audiences has risen to the height of enjoying lectures on so recondite a subject.

A Manual of Anatomy. By IRVING S. HAYNES, Ph.B., M.D., Adjunct Professor of Anatomy in the Medical Department of the New York University, &c. With 134 half-tone Illustrations and 42 Diagrams. London: Henry Kimpton. 1896. Pp. 680. Price 12*s.* net.

THIS book is a manual of practical anatomy and deals with the structures of the several regions of the body in the order in which they are met with in dissection. The author tells us in his preface that "descriptions of the bones and the joints and of those minute parts which require special preparation for their dissection have intentionally been omitted." It has always been customary to omit from handbooks of practical anatomy descriptions of the bones, for these should have been learned before the commencement of dissecting, but the case is far otherwise with the joints. They should certainly be studied in connexion with the dissected part, for in no other way can the ligaments and the movements of the bones in a joint be understood thoroughly; therefore we cannot but look upon the omission of an account of the joints as a distinct drawback. The descriptions of the various structures met with are decidedly brief, but in a work on practical anatomy this is an error on the right side. As to the illustrations, which are numerous, it is obvious that the author has spent a great deal of trouble in preparing careful dissections and in taking photographs of these; from the photographs the majority of the illustrations have been prepared, and some are moderately successful, and give a very fair idea of the parts, but unfortunately many of the illustrations show very little; for instance, in Fig. 4, which represents a dissection of the side of the head, only the larger structures are discernible. The attempt has been most praiseworthy, but the results are lamentable. The diagrams are very good, and some composite photographs showing the relations of the viscera to the thoracic and abdominal walls are of great value. This form of composite photograph was brought forward by the author before the first Pan-American Medical Congress at Washington in 1893. The index is very copious, occupying more than thirty pages, and is exceedingly well-arranged and accurate.

LIBRARY TABLE.

L'Opération du Trépan. Par FÉLIX TERRIER, Professeur à la Faculté de Médecine de Paris, Chirurgien de l'Hôpital Bichat, et M. PÉRAIRE, ancien interne des Hôpitaux de Paris. Avec 222 figures dans le texte. (The Operation of Trephining. By FÉLIX TERRIER and M. PÉRAIRE.) Paris: F. Alcan. 1895. Pp. 283. Price 5 francs.—It cannot be denied that the authors of this work have treated the subject very thoroughly. They start with the trephining of prehistoric days as revealed to us by neolithic skulls exhibiting apertures made intentionally. When these skulls were first discovered it was thought that the openings were accidental or made after death, but their position, regularity, and the state of the bony margin sufficiently contradict these suppositions. The numerous instruments which have at various times been employed in this operation, and the changes which the operation itself has undergone, are very fully described. The second part deals with the methods of fixing the positions of the important cerebral convolutions and other intracranial structures such as the sinuses; and the third section is concerned with an account of the modern operation and the instruments used at the present day. It is certainly difficult to imagine that a more elaborate or complete work on the subject could be produced, and it is a monument of much hard work and careful research on the part of the authors. The illustrations have been supplied liberally and amount to more than 200 in number. Another point of excellence may be noticed; the references to original treatises on the subject are extremely numerous.

Transactions of the Eighteenth Annual Meeting of the American Laryngological Association, held in the City of Pittsburgh, Pa., in 1896. New York: D. Appleton and Company. 1897.—Many articles of great interest are contained in these transactions, but probably the most interesting refers to a case of fibro-chondroma of branchial origin, which was successfully removed from the pharynx of a child six weeks old by Dr. A. W. de Roaldes; the tumour was covered with skin, containing hair follicles and sebaceous glands, and there was cartilage in its interior. Another paper of importance is one by Dr. C. H. Knight. It deals with the nasal sequelæ of syphilis and gives a good account of the employment of a platinum bridge for cases of necrosis of the septum; the illustration shows the marked improvement in appearance which may be obtained in some cases by this method of treatment.

Electro physiology. By W. BIEDERMANN, Professor of Physiology in Jena. Translated by FRANCES A. WELBY. London: Macmillan and Co. 1896. Demy 8vo. 17*s.* Vol. I.—To the advanced student of physiology the appearance of an English translation of Professor Biedermann's standard work will be welcome. The subjects dealt with in this volume are the structure of muscle, the phenomena of contraction, of electrical excitation and of electro-motive force in muscle, and the electro-motive action of epithelial and gland cells. We understand that the second volume may be expected shortly. The translation is well done and the style of the book is uniform with Professor Michael Foster's well-known "Physiology."

JOURNALS AND REVIEWS.

Scottish Medical and Surgical Journal.—Of the ten articles contained in the present number the most original is, perhaps, the one on Telegony, by Professor J. Cossar Ewart, of Edinburgh University. The word telegony was proposed by Weismann to denote the case in which

a female is so influenced by the first sire to which she bears offspring that the subsequent offspring to other sires present some of the characters or peculiarities of the first. Early in the century Lord Morton bred from a chestnut mare a quagga-hybrid, and the mare afterwards produced to a black Arabian horse a filly and a colt marked like the hybrid. In 1895 Professor Ewart formed a small stud and commenced various crossing experiments between horses and zebras. He now has five zebra mare hybrids, and the dam of a last year's hybrid has recently produced to an Arab horse a foal presenting numerous zebra-like stripes over the croup and loins. He enumerates the explanations of this phenomenon that have been suggested by Sir Everard Home, Herbert Spencer, and Weismann, all of which he thinks are highly improbable. An article of about twenty pages in length on Medical Education in Scotland gives full details of the curriculum in the Scottish universities and extra-mural schools.

Edinburgh Medical Journal.—Professor T. R. Fraser contributes the first part of a very interesting paper on Paroxysmal Hæmoglobinuria. The patient was a man between forty and fifty years of age who was under treatment in the Edinburgh Royal Infirmary in 1895 and again in 1897. The illness originated suddenly in 1889 from exposure to cold. The subsequent attacks were invariably due to the same cause, and they could be prevented even in the most inclement weather by the patient remaining in bed all day. With the patient's willing acquiescence several paroxysms were purposely induced by immersing the legs from the feet to the tubercles of the tibiæ for ten minutes in water at 45° F. During the attacks the colour of the urine varied at different times from red to black. Professor Fraser gives minutely detailed accounts of the condition of the urine, blood, circulation, &c. Mr. H. E. Durham, of the Pathological Laboratory, Cambridge, has a paper on the Serum Diagnosis of Enteric Fever, and also describes a modified form of Hæmocytometer. A special feature of this number is an article on Medical Education in the United Kingdom; it is about thirty pages in length, and gives a great variety of information useful to students.

Dublin Journal of Medical Science.—Mr. J. S. McArdle concludes his paper on the Treatment of Acute Intestinal Obstruction. Dr. Patrick Letters contributes the first portion of an article on Infantile Mortality in Ireland. He considers that the general public do not sufficiently appreciate the significance of infantile mortality regarded separately from mortality at all ages. He uses the term "infantile death-rate" to denote the proportion of deaths of infants under one year of age to births registered during the same period over which the deaths occur; it is expressed as so many per thousand births. Medical education and examinations in Ireland are very fully described in a chapter of about forty pages.

Friend of China.—This monthly, which is the journal of the Society for the Suppression of the Opium Trade, states that in fifty-eight years the Government of India derived from the opium traffic a revenue of £253,975,383, and adds that all this opium has gone to debauch the Chinese. This revenue, however, has greatly fallen of recent years, being this year only 5 per cent. of the total net revenue of India, whereas in 1883-84 it formed 19 per cent. of the revenue. A daily newspaper is quoted to the effect that in Johannesburg many Chinamen and Europeans do a thriving business by supplying Kaffirs with opium prepared for smoking.

Mercy and Truth.—An adventurous journey of several days' duration made by Dr. A. R. Cook is described by him under the heading of "A Medical Visit in Uganda." There are also portraits and short biographies of eight medical men, most of whom have recently left this country as missionaries.

New Inventions.

THE DIAMOND JUBILEE PORTABLE HOSPITAL TELEPHONE.

THIS ingenious instrument is the invention of the London and Provincial Telephone Company. It will be obvious to anyone that in cases of infectious disease it would be of great advantage to both the patient and other residents in the house if some communication could be kept up, so that during the long period of isolation, during which the patient may be perfectly well in other ways, he or she might not be cut off from all conversation. The instrument consists, as does any telephone, of a receiver and transmitter in addition to a case containing a battery, which are shown in the illustration (Fig. 1). Of course, two of these are required, one set placed in the sick room and the other in the room of the person to be communicated with. When the receiver is in place, as in

FIG. 1.

the illustration, it connects up the bell, the push of which is seen just underneath the receiver. When receiving a message the receiver is slid off the transmitter and held to the ear in the usual way. We have tested this instrument and found it to work admirably. As a practical instance of a case where this instrument would have been of great value we may mention the case reported in our columns last week where a medical man who was suffering from scarlet fever had to call his deputy into the room to give him instructions. Had he been possessed of a telephone of this kind all risk of infection would have been avoided. The price of the two instruments complete with twelve yards of wire cord is £4 10*s*.

A similar telephone to the above, but without the case containing the battery and the flexible wire-cord, can be supplied to take the place of the ordinary electric bell-push in sitting- or bed-rooms, &c., for the sum of 36*s*. 6*d*. per pair. The existing bell, wires, and battery are left intact, and all that is required is to substitute one of the telephones (Fig. 2) (which is not very unlike it in size and appearance) for the bell-push, connecting the bell-wire thereto, and the other to the bell or indicator in the servants' hall. This can easily be done by any local electric-bell fitter. Another neat form of instrument is made to stand on the writing-table if required. The advantage of having telephonic communication in conjunction with the ordinary electric-bells in private houses, hospitals, and other large establishments at so small a cost will be apparent to everyone. The instruments can be obtained from the London and Provincial Telephone Company, 11, Queen Victoria-street, E.C.

FIG. 2.

PLYMOUTH EYE INFIRMARY.—The Countess of Morley has promised to lay the foundation-stone of the new Plymouth Eye Infirmary on Dec. 1st. It is to be erected on a site near Mutley Railway Station.

THE LANCET.

LONDON: SATURDAY, OCTOBER 30, 1897.

A CONFERENCE on hospital reform, at the instigation of the Hospital Reform Association, was held in St. Martin's town-hall on Thursday, the 21st inst. The discussion was lively, and some new points were raised which will be seen in our report of the meeting on page 1137. One feature of the meeting was the presence of Sir WILLIAM BROADBENT, who displays an interest and an honest courage in dealing with this question which cannot fail to advance its ultimate solution. He spoke of hospital abuse as a great evil and an injury to the really poor.

The speech of Sir HENRY BURDETT is one to be noted by the medical profession. Sir HENRY BURDETT is not a medical man, but he poses so often as a semi-medical authority that his words become important on such questions. His remarks in explanation of the abuse of hospitals and on the remedies for curing them were alike noticeable. The common view of the profession as to the bloated proportions of the out-patient rooms is that the doors are opened too wide, that very indifferent inquiries as to fitness are made, that advice and medicines are given for nothing or next to nothing, and the crowding patients are led to believe that sooner or later, actually or potentially, the gratuitous advice and assistance which they will get are given by the heads of the profession. These great attractions are supplemented by stalls at which refreshments may be had on the same easy terms as the medicine. It is difficult for medical practitioners to compete with such terms as these. And Sir HENRY BURDETT might have found in this circumstance an explanation of the fact that whole classes, whose relief was never contemplated by the original founders of our hospital system take advantage of it. But, as if this were not enough, he must advance the theory that private practitioners are inefficient. This is really too much for the greatly enduring practitioners, who are first educated in the hospitals and then find themselves in sharp competition with them on such unequal terms. The profession might have expected more justice at the hands of one who professes to know so much about it. Has he any doubt that medical men could fill their consulting-rooms by the same methods that fill the out-patient rooms? Dr. WARD COUSINS happily and forcibly vindicated the medical profession, more highly educated and efficient than it ever was, from this unjust suggestion, as he had no difficulty in doing. But it will become a serious question, if these are really Sir HENRY BURDETT'S views, whether medical men should be asked to appear on the same platform with him again for the promotion of hospital reform.

A correspondent calls attention to another suggestion which seems to be equally dangerous. Sir HENRY BURDETT is enamoured of small subscriptions and small payments to hospitals, which seem to be associated in his mind with some claim on the part of those making them to medical attention at hospitals. The association of these things—a personal claim on hospitals for attention and assistance prior to that of poverty and sickness and apart from considerations of the social circumstances or the nature of the illness of those making petty periodical payments, is enough to transform hospitals from being the noblest institutions to being among the meanest, and to divert the streams of that public benevolence on which they must always depend. We shall be glad to hear that in this construction of his words we and our correspondent are wrong. But there is much in current events and in the abuse of hospitals which makes us fear that Sir HENRY BURDETT, with that happy conviction of his own insight into subjects which are not his proper study, is prepared to try experiments on our great hospitals and our great profession which are unwarrantable.

THE conclusions of the International Conference on Leprosy which has just finished its labours at Berlin will be read by medical men with considerable interest. Briefly stated these conclusions are: (1) that the leprosy bacillus (discovered by HANSEN in 1871) is the true cause of the disease; (2) man is the only animal in which that bacillus exists; (3) leprosy is contagious, but is not a hereditary disease; and (4) isolation of leprosy patients is desirable, and under such circumstances as exist in Norway compulsory isolation is to be recommended.

With regard to the bacteriology of the disease HANSEN'S researches from 1871 to 1874, followed by those of NEISSER in 1879 and afterwards by observers in various parts of the world, have fully established the fact recorded in the first of the above statements. For many years all efforts to cultivate the bacillus on artificial media failed. Quite recently, however, CAMPANA, of Rome, succeeded in obtaining cultures from cases actually progressing. This may account for the failures experienced by other observers, for most of their attempts have been made with material removed from advanced cases in which, according to CAMPANA, the bacilli have undergone degeneration.

The most important conclusions at which the Conference arrived, however, were as to the contagiousness of the disease and the methods to be adopted to check its prevalence. The Commission which investigated this subject in India in 1893 thought that the state of alarm occasioned by the report that leprosy was greatly on the increase was groundless, and urged cleanliness, strict observance of sanitary laws, improvement of general health, and variety of diet. Dr. HANSEN brought forward the following resolutions: 1. In countries where leprosy forms foci, or has a great tendency to increase, isolation furnishes the best means of preventing the spread of the disease. 2. The system of obligatory notification, observation, and isolation as carried out in Norway is recommended to all nations with local self-government and a sufficient number of physicians. 3. It must be left to the administrative authorities, after consultation with the medical authorities, to take such special measures as are applicable to the special conditions of the districts. Dr. PHINEAS ABRAHAM'S remarks on these points are especially interesting and will no doubt coincide with

the opinion of most of our English authorities. Our interest in leprosy is naturally concerned with its spread in India. Dr. ABRAHAM pointed out that where lepers are numerous and their friends still more numerous and not desirous of being separated from them harsh measures of isolation and segregation become impossible, their chief result being the concealment of cases. This has been well exemplified in the case of South Africa, where recent inquiries led to the conclusion that the attempts to send all lepers to Robben Island only resulted in many cases being hidden throughout the country. Many medical authorities of eminence (the speaker continued) strongly disapproved of stringent legislation, and until medical opinion became unanimous and our knowledge of the pathology and etiology of the disease more complete the question of legislation would continue to be decided according to the views of individual governments. This was especially true as regards the British Empire, where social and political conditions in the different colonies and dependencies differed widely from one another. If the Government had had serious difficulty in enforcing simple sanitary precautions in the case of such an acute and fatal malady as the plague in India how much more difficult would it be to insist upon harsh measures in the case of leprosy. The above *résumé* of Dr. ABRAHAM'S remarks we have taken from the *Times* of Oct. 18th, and, as already stated, we feel that his words will commend themselves to English medical men. The difficulties that would arise in applying isolation to our Indian subjects would be immense; but with our advanced knowledge of the bacteriological origin of the disease it behoves those who are concerned in the regulation of sanitary matters in India to pay the most minute attention to the recommendations of the Commission of 1893. The Government will doubtless have the verdict of the Berlin Conference brought to their notice and can hardly venture to altogether ignore it; but whether further investigation will be officially ordered and another report demanded we cannot venture to foretell. The delegates were all high authorities on the subject, and consequently their recommendations must be duly and carefully considered.

THE number of attacks of enteric fever in Maidstone had reached 1748 by the 27th inst., and thus this epidemic only finds one parallel in the modern sanitary history of this country. That parallel is the case of Worthing, where, during an epidemic period of seven months, from May to November, 1893, as many as 1411 attacks were recorded, and both in Maidstone and in Worthing the vehicle of the disease has been a public water-supply. It might be difficult to hold the Worthing Corporation directly responsible for the distribution of the enteric fever poison by means of their water-supply, because the infection that reached the water in that case was the result of accidentally meeting a fissure in the chalk during works carried out to improve, or at least augment, the water service. But after the event it became clear that the wells, sunk as they were in so fissured a stratum as the chalk, had become surrounded by houses, sewers, and drains, as the result of the extension of the town, to such an extent that the supply ought to have been looked on with suspicion. Anyhow, a terrible object-lesson was afforded of the results liable to ensue on the infection, whether as the result of neglect or by accident, of a public water-supply. So long as each house in a town or village had its own well, sunk in a polluted soil, so long was enteric fever fairly general and habitual in its incidence in this country; but we were as a rule spared the great and tragic outbursts which now at times ensue when the infection is allowed to get access to a public water service by means of which thousands of people almost simultaneously run risk of being infected. The later reports of the medical officer of the Local Government Board record epidemics which prove incontestably that the grossest and the most culpable neglect still prevails as regards a number of our public water-services, whether the supply is derived from springs, deep wells, gathering grounds, or streams; and we fear that at times the extent of the negligence and danger bears a definite relation either to the amount of pecuniary profit actually derived from the sale of the water to the public or to efforts made to render that profit greater. This is a state of affairs which has hitherto been all but ignored by Parliament in granting powers to water companies, whether municipal or private; and it is to be hoped that the attention which has been drawn to the subject by the Maidstone epidemic will lead to a much more careful watch than has usually been exercised over the powers and liabilities conferred and incurred in Bills as to public water-supplies.

We studiously avoid implying that blame attaches, whether here or there, in the case of the Maidstone water-service, because it is now announced that the Local Government Board will, if requested, hold a public inquiry into the matter. What this new inquiry will be we do not know, nor is it clear whether or not the official inquiry which has now for several weeks been carried out by Dr. THEODORE THOMSON, of the Medical Department of the Board, will be superseded, or whether two inquiries will go on together. But one thing is clear, that in fairness to the water company judgment as to their proceedings antecedent to the commencement of the epidemic must now be suspended. In one sense this is a misfortune, for the public cannot obviously be informed what is the official decision come to as to the cause or causes of the outbreak until the new inquiry has been held and concluded.

But on one matter we can speak freely, and that is that the visits of our Special Commissioner have shown that Maidstone is placed, by reason of antecedent neglect in its sanitary administration, in precisely that position which will probably make it most difficult to shake off an infection such as that of enteric fever, and that it behoves the town council not to lose an instant in trying to repair the errors of the past. Wherever there has been filth which has had access to the surface soil; wherever there are water-closets—so miscalled—which have no water laid on to them; wherever, in brief, there are conditions which favour the excremental pollution of air breathed, of water drunk, or of soil on or near which dwellings stand,—there it is that the sanitary authority must be hard at work in applying remedies. When all this has been done effectively there may

be available sufficient information on which to apportion blame for the disaster of the past two months and for the continuance of the disease. It is as much the duty of a sanitary authority to see that its district is free from conditions that tend to harbour infection when imported or otherwise brought into its midst as it is for purveyors of either water or milk to see that their business is carried on so as not to endanger the public health. In most of these epidemics there is often blame on one side as well as on the other.

THE Council of the Hospital Sunday Fund is a cautious body. It spent nearly two hours on Wednesday in discussing a report on the out-patient department of the metropolitan hospitals, and ended by passing the following resolution:—

"That this Council recommend that at the next meeting of the constituents in December the following clause be added to the laws of the constitution: 'That where any hospital, having an out-patient department, has appointed a special and efficient officer for detecting any abuse in that department, it shall be regarded by the Distribution Committee as an important factor in determining the "merits."'"

Neither the report, which will be found in another column, nor the resolution based on it will excite the enthusiasm of those who realise the loose and pauperising way in which the out-patient department of some hospitals is conducted. If any relieving officer admitted applicants for parish relief in the way in which out-patients are admitted to the benefits of charitable medical aid he would soon be replaced by a more efficient successor. But familiarity breeds contempt, and it has accordingly come to pass that the governing bodies of our hospitals see this impracticable mass growing under their hands from day to day without realising its significance or with a sense of incapacity leading them to view with dislike all efforts to control it. They even come to approve it, to defend it, and to vaunt it as an argument of utility.

But though we are under no delusions as to the immediate effect of this resolution in reforming the out-patient department, it is, nevertheless, a step in advance, in that it has committed the Council of the Hospital Sunday Fund to the recognition of a chief measure for curtailing the out-patient department as a "merit" in a hospital. The quality of merit or demerit, according to the rules of the Hospital Sunday Fund, affects the award made by the Distribution Committee. It may be henceforth assumed, supposing the constituency to accept this clause, that a hospital without a special and an efficient officer for the detection of abuse in the out-patient department will be without one "merit," at least, on which the amount of its grant depends. The action of the Council on Wednesday shows its confidence—and very proper confidence too—that it does not exist merely to provide money for the hospitals, but to give friendly suggestions where these are necessary for their better administration, or for securing their benefits to those for whom they are meant.

The same discussion showed a great advance in the Council in the perception of the seriousness of the out-patient question and a disposition to put itself into harmony with public opinion outside. It would be simply disastrous if large funds were to be raised for hospitals from time to time without any guarantee being afforded that their distribution will be made on definite principles that will protect the poor and will at the same time prevent those that are not poor from pauperising themselves. A motion by Dr. GLOVER went, perhaps, a little further than Sir SYDNEY WATERLOW'S, and was apparently grateful to the Council, but in our opinion Dr. GLOVER showed a wise willingness to accept a motion from Sir SYDNEY WATERLOW, the Vice-President of the Fund and Chairman of the Distribution Committee, which was seconded by Sir WILLIAM BROADBENT who has been most helpful in this cause. No one could suspect him of having any designs against hospitals or the independence of managers of hospitals, but he has deep insight into abuses which demoralise the people and injure the profession. He has besides what is not universal in our profession, the courage of his opinions, and a power, amid abounding engagements, to give time to act as a leader, so that we are pleased to find ourselves for the second time in this issue of THE LANCET trumpeting his praises as an advocate of the rights of the profession.

The important matter of the distribution of the Fund has now for the first time become part and parcel of the out-patient question. There can be no doubt that much of the success which has attended the working of the Fund, apart from the efforts of the gentlemen who compose its Council and Committees, is due to the confidence which the public have always placed in the Distribution Committee. With a view to increasing this confidence some of the members of the Fund, and notably Sir HENRY BURDETT, have from time to time asked the Chairman of the Distribution Committee to disclose the mode of distribution of the Fund. This Sir SYDNEY WATERLOW has now done in the Board-room at Charing-cross Hospital on Thursday last, and his words cannot but increase the public trust in the administration of this great charity. We shall publish Sir SYDNEY WATERLOW'S statement next week.

Annotations.

"Ne quid nimis."

PROFESSOR MACEWEN AND THE MANAGERS OF THE GLASGOW WESTERN INFIRMARY.

THE difficulties of the managers of the Glasgow Western Infirmary in connexion with new arrangements of their wards and beds are still causing much anxiety both to them and to those who have the best interests of the University of Glasgow and of medical education at heart. The managers of the Western Infirmary met on Tuesday to consider the questions in dispute between them and Professor Macewen. They were nearly all present, and all but one (Professor Moir) agreed to the publication of a statement by them defining their duties on the one hand to the public to make adequate provision for the care of the sick, and on the other "to make," in consideration of a money payment from the University to the infirmary, "such reasonable provision as is deemed necessary by the Senate of the University of Glasgow and

the managers for professors of the University engaged in clinical instruction.' The managers traverse with considerable force many of the statements which have been made on this subject, while they express their pride at the connexion of Professor Macewen with their institution. They are evidently in the great difficulty of having to meet the demand for more beds than they can well supply. We think that if this aspect of the case is taken into consideration and a little time given on both sides a solution of this question should be reached. The colleagues of Professor Macewen presented to the managers a very strong and dignified statement regretting the resolution to take away from their distinguished colleague twelve of the beds which he uses so well, and especially that it should have been done without "some inquiry" beforehand into "the disadvantages to which his surgical work and teaching will be subjected by the change proposed." It seems obvious from the very terms of the deed of agreement with the University that the Senate of the University should have been consulted before changes so deeply concerning the interests of medical education in the University were resolved upon. On the face of this representation from the Senate it appears that in restricting the beds at Professor Macewen's service the managers are failing "to make the provision deemed necessary by the Senate." We in no way forget the claims of other professors or the difficulties of the managers, but we look confidently for a solution of the difficulties in a sense that will satisfy Professor Macewen and his colleagues in the Senate. There are times when a school or a university is represented by one of its number. This is such a time. It is not a mere question of surgery which Professor Macewen so brilliantly represents. It is a question of therapeutics, towering over all other questions in therapeutics, in its range, and its importance, and we think that his claims, viewed in this light by the managers, will lead them to conclude that some way must be found to leave him in undisputed possession of his present facilities for teaching.

THE REPORTS OF THE ROYAL COMMISSION ON VACCINATION.

IT may save confusion, or add to it, if we endeavour to explain how matters stand with regard to the publication of the reports, with appendices, of the Vaccination Commission. In all seven reports have been issued. Strictly speaking, each of the first four reports consisted merely of a preliminary note to a volume of minutes of evidence and of appendices to minutes of evidence. These four volumes of minutes of evidence, containing also their relative appendices, are, however, conveniently called the first four reports of the Commission. Each of these four volumes was provided with a good analytical index. Volume I. was published in 1889, Volumes II. and III. in 1890, Volume IV. in 1893, and Volume V. in 1892. The fifth report, which it will be noticed was published before the fourth, was a short document in which the Commission stated their disapproval of repeated prosecutions for neglect of vaccination. Next in order should have come the sixth report; this report, however, was not issued until the present year. Like the first four, the "report" itself is a mere preliminary note, the volume being made up of minutes of evidence and appendices to these minutes of evidence. It differs from the first four volumes in being very much bulkier than any of them and in being published without an index, so that, though it contains the evidence of about eighty witnesses, it is rendered practically useless for purposes of reference. In the interval between the publication of the fifth and sixth reports the final, or seventh, report was issued in 1896, and also without an index. The volume containing this report contains also the Statement of Dissent by Dr. W. J. Collins and Mr. J. A. Picton. Page 6 of the volume gives a "List of Appendices to the Commission's Final Report." But the volume itself contains only the first two appendices mentioned in the list. Appendices III., VII., VIII., and IX. have not yet been published. Appendices VI., V., and IV., however, have now been issued within a few days of each other, Appendix VI. appearing before Appendices V. and IV. Each of these appendices is itself a report, Appendix VI. being Dr. Sidney Coupland's report on the Outbreak of Small-pox in Leicester in 1892–93, Appendix V. Dr. T. D. Savill's report on Small-pox in Warrington in 1892–93, and Appendix IV. Dr. Luff's report on Small-pox in London in 1892–93. These three appendices are published without an index. The appendices yet unissued are to consist of reports on Small-pox in Dewsbury, Gloucester, &c., and of papers relating to cases of injury alleged to be connected with vaccination. It is not known when they will be published or whether they will be indexed.

THE PUGILIST AND THE HOSPITAL.

BOXING has always been one of our national sports, and the National Sporting Club is, we believe, the Mecca of the champions of modern pugilism. We at all events have nothing at the moment to say against it, and are only gratified to learn that a British youth known as "Pedlar" Palmer has recently there met and defeated another "bantam" of Irish-American extraction and been rewarded with a purse of £600. It is also interesting to learn from a contemporary that Mr. Palmer, who is not yet twenty-one years of age has won over £3000 in stakes alone during the past two years, while we congratulate him on the pluck which enabled him to go on and win his last victory fighting nine rounds after one or both of his hands had given way. The same authority informs us in a succeeding issue that the injury consisted in a fracture of the small bone of the left arm, and adds a statement which seems to us almost libellous as it stands. It states that the injury was NOT discovered till "he went to the Poplar Hospital on the next day to have the hand dressed." We feel sure that "Pedlar" Palmer would as soon winter in the workhouse as accept surgical aid at the expense of a charitable institution, and that if our contemporary's account is correct so far as it goes it has omitted to mention that a cheque for at least £50 out of the last £600 has found its way into the coffers of the Poplar Hospital from the pocket of the grateful pugilist.

THE HEALTH OF THE NAVY.

THE question of how to instruct our naval medical officers in the pathology, prevention, and treatment of tropical diseases is now being debated in the columns of the leading daily journal. It has been suggested that the medical officers at Haslar Hospital should give courses of lectures to the junior naval medical officers as they enter the services. But, as Dr. Walter Reid, Inspector-General, R.N., points out in his letter to the *Times* of the 26th inst., "the great difficulty in the way of success with such a plan is to find a medical man in the service, or, for the matter of that, elsewhere, with the requisite qualifications, particularly as to a knowledge of tropical diseases and of the various modifications in health liable to occur during the service of men abroad. He would require to be a man who has spent years on each of our foreign stations. It would be necessary that he should have had opportunities of seeing and working through several great tropical epidemics, when or wherever they should happen to occur. He would require, for instance, to have been at Hong-Kong the other day for plague, elsewhere for a cholera epidemic, and in the West Indies during one of yellow fever. He would require to have

wide experience of malarious disease in the many forms which it assumes in different parts of the world. It is safe to say, and no disparagement to naval medical officers, that such a man cannot be found. It would be almost impossible to make him, for he would either be dead or past his work before he had time to acquire the necessary qualifications. The truth is that under ordinary conditions of service the medical officers do not see much of the graver forms of tropical disease except when employed on shore, for the rule is, as it ought to be, that our ships avoid unhealthy ports, or when they must visit them then they leave them as soon as possible. The great watchword which must guide all their endeavours is prevention." The Dean of the Medical School of St. George's Hospital writes on Oct. 23rd that lectures in tropical medicine are delivered there by Dr. Patrick Manson. This is certainly a step in the right direction; but we must remember that Dr. Manson, being physician to the Seamen's Branch Hospital, Albert Docks, and not to the Seamen's Hospital, Greenwich, or old *Dreadnought*, has only some eighteen beds at his disposal, and that these do not afford much clinical material to work upon. Dr. Reid makes a suggestion which we think a good one. It is that the old plan of issuing an annual report on the health of the navy, which used to be carried out under the superintendence of Dr. Mackay, should again be followed. This used to be compiled from the various medical officers' journals and reports, and was, Dr. Reid says, of great value. These reports are still sent to headquarters, but the only report which appears is "practically nothing more than a bald collection of statistics." We should say the sooner "my lords" return to the old style of report the better. All Government departments have a mania for saving halfpence and spending pounds, but the little extra money which a reversion to the old system would cost would be more than counterbalanced by the value of the information which would be put into the hands of those responsible for the health of our first line of defence.

MR. STEAD AND THE CONTAGIOUS DISEASES ACTS.

THE editor of the *Review of Reviews* has degenerated into language concerning the Contagious Diseases Acts that is more than abusive; it is actually rancorous. In an article headed "Our Real Peril in India," which appears in the current number of the journal in question (p. 368), after expressly saying that he does not "wish to assume that the allegations so freely made on the one side and tacitly admitted on the other are really correct," and after announcing his belief "that current reports may be exaggerated, and the Indian authorities may not be doing all that they are credited with," this perfervid champion of free trade in venereal disease commits himself to the following extraordinary statement: "Certainly if the Indian army is to be run by such unscrupulous rogues as those army doctors who are responsible for the cooked statistics with which they have defiled the name of the country and such mutinous officials as those who have set Lord George Hamilton's directions at naught there would be good reason for setting on foot an agitation against enlistment, which would only need a little encouragement to paralyse the War Office." There can be but one opinion regarding a controversialist who thus stultifies himself within the space of a few lines while offending against decency by his outrageous diction. That opinion is that his case is a woefully poor one. As an example of idle vituperation the passage we have quoted might be thought hard to beat; but a little further on in the article there is another outburst which perhaps beats it. Here it is: "Of course, I shall be told at once that I am indifferent to the sufferings of the soldiers, and that if we have not this system we shall see the army eaten up with disease. To which assurance I have simply to make one straight answer—namely, that those who make it lie in their throats and if they had an elementary knowledge of the facts they would know that they lied." Precisely so! Now those unscrupulous rogues, the army doctors, happening to possess elementary, to say nothing of exhaustive, knowledge of the facts are perfectly well aware who is "lying in his throat" or in his journal, as the case may be. Intemperate language is generally the sign of a bad case, and it would be difficult to find a more effectual proof of the unsoundness of Mr. Stead's views than his own utterances, so we continue to quote from him. Here, for instance, is a passage which clearly convicts its writer of prejudice, not to say fanaticism: "The service is not too popular to-day, but if we are to be taught that it is only an ante-chamber to the brothel and the lock hospital the difficulty of recruiting will speedily be increased to a degree which would give Lord Wolseley the nightmare. If we have a few more dissertations like Colonel Turner's, Lord Lister's, and other men of that kind, it may very soon become a duty to convince the masses of the people that the army in India is no fit place for any decent woman's son." What drivel! Now, just one last example of the depth of Mr. Stead's knowledge, without a belief in the possession of which, we suppose, he would hardly have written in this way about "rogues" and "lying in throats." He accuses Colonel Turner of "effrontery" in asserting that "on the Continent youth is generally and efficiently protected by State legislation," and then, in order to demolish his military adversary, he quotes from a "dignified and effective rejoinder" by the Rev. J. Kirk Maconachie, who says: "The French hospital returns show that between 60 and 70 per cent. of venereal disease is contracted from 'protected' women." Clearly Mr. Stead imagines, or would have us believe so, that these "protected" women are registered and periodically examined prostitutes. Does he not know the phrase "protected" women as used for "kept" women, and that such "protected" women are under no police control at all? If he is ignorant of these things he is not in a position to discuss the Contagious Diseases Acts. If he knows them he would appear to have been—well, equivocating in his larynx.

YELLOW FEVER.

IN the *New Orleans Medical and Surgical Journal* for October are four articles on Yellow Fever. The first, on Etiology and Pathology, is by Dr. R. Matas; the next, on Symptomatology and Diagnosis, by Dr. F. W. Parham; the third, on Treatment, by Dr. T. S. Dabney; whilst Dr. J. J. Archinard reports a case with the necropsy. The paper by Dr. Matas gives an interesting historical account of the researches which have been carried out concerning the nature of the fever and the efforts which have been made to discover its cause and the mode of diffusion of its contagion. A full description is given of the micro-organism isolated by Dr. Sanarelli this year, and reference is also made to the organism discovered likewise in the present year by Dr. Havelberg. He concludes his paper by considering what bearing Sanarelli's discovery, if verified, has upon the prophylaxis, diagnosis, and treatment of yellow fever, and sums up as follows: 1. As to prophylaxis. It is legitimate to expect that in dealing with so specific and potent a micro-organism as the bacillus icteroides it is possible, by attenuated culture or by an antitoxic serum such as is now obtained from immunised horses after subjecting them to experimental diphtheria or tetanus, that a reliable preventive and curative agent will be obtained. 2. As to diagnosis. That if the cultures obtained from the bacillus icteroides are specifically characteristic, as claimed by Sanarelli, a pathognomonic

culture may be obtained in twenty-four hours from suspected cases. Again, if this should be impracticable during life, owing to the paucity of germs in the blood, it is possible that a specific serum reaction similar to Widal's agglutination test may be obtained, which will permit of an immediate and infallible diagnosis in the early stages of the disease. 3. As to treatment. The greatest value of Sanarelli's researches lies in the prospect of obtaining a specific antitoxin which alone can cope with the specific cause in the blood and the tissues. Apart from this, these researches would suggest some important conclusions which affect our present mode of treatment—for instance, that resorting to germicidal medication with the view of destroying the specific micro-organisms in the gastro-intestinal tract is of no use. When the symptoms of yellow fever present themselves the specific germ and its toxins are already in the blood and tissues, and no amount of purgation or gastro-intestinal antisepsis could possibly affect its future course or development. On the other hand, in view of the secondary affections which so frequently complicate this disease by the invasion of the colon bacillus and other bacteria of the gastro-intestinal tract in the graver types of this infection, it is perfectly logical and proper to resort to laxatives and intestinal antiseptics and a total abstinence from all foods, with the view of diminishing these secondary intoxications to a minimum. One of the fundamental and pernicious errors in this disease, according to Dr. Matas, is the belief that food is necessary in its treatment because it is a prostrating disease. This is not a wasting disease, and when it is typical it is self-limited and of comparatively short duration. The cry of the organism is not for food, which will only help to clog up the machinery of elimination, but for water, which is needed to dilute the toxins in the blood, to maintain the secretions of the poisoned organs, the skin, and, above all, to flush out the kidneys, which are blocked up so early in the struggle.

THE UNQUALIFIED PRACTITIONER AGAIN.

AN inquest was recently held in Singapore upon the body of a man who died after taking an overdose of chloral. It should also be added that he was suffering from delirium tremens and was a chronic alcoholic. The interest of the case, however, lies in the fact that the deceased was treated by an unqualified person named Max Wispauer, who in his evidence described himself as a German and a chemist, and said he was not allowed to practise in his own country. He examined the deceased's heart very carefully and gave him what we must allow were sound instructions. He also prescribed bromide and chloral, which drugs are well known to be useful in the case of delirium tremens. But, as everyone knows, persons in this condition require very careful watching during the exhibition of these drugs, and this Mr. Wispauer omitted. This we may see from the verdict, which ran as follows:—

"Death was due to an overdose of chloral hydrate acting on a weak heart. So large a dose as 30 grains of chloral hydrate following 24 grains of chloral hydrate taken during the day, and followed by a similar dose of 30 grains of chloral hydrate, should not have been given in the weak condition of deceased's heart. The chloral hydrate was prescribed by Mr. Wispauer, and he ought to have visited the deceased to note the effect of the first dose of 30 grains of chloral hydrate before allowing the second similar dose to be given. The chloral hydrate was dispensed by Mr. Wispauer, and he was negligent in not writing full directions on the label of the bottle, particularly as he considered the deceased to be suffering from a disease affecting the mind. For if so it was natural to expect that verbal directions might be forgotten or not implicitly followed. Thus in prescribing and in dispensing a poisonous drug so uncertain in its action as chloral hydrate Mr. Wispauer was negligent.

"*Rider*.—It is to be regretted that no ordinance exists in this colony to prevent unqualified persons from treating dangerous diseases and prescribing poisons. This colony appears to be the only one where such an unfortunate condition exists."

The colonies are in this case much better off than the mother country. Over here any swindler, however ignorant, can practise as much as he likes and no one can say him nay, so the quack, the faddist, and the cheat may sing in chorus, "Oh! what a happy land is England." Perhaps the advent of Mr. Horsley on the General Medical Council may bring about a better state of things.

SUDDEN DEATH OF A PRISONER.

SOME interesting medical evidence was given the other day at an inquest held in Lancaster Castle on the body of a prisoner who had been found dead in his cell. It appears that he had been an inmate since last June and had often complained of pain in the head and had suffered occasionally from vomiting. In consequence of this he was frequently seen by the prison surgeon. At the post-mortem examination an erosion of the base of the skull of about the size of a shilling was found. Lying upon this was a "softened mass" containing spicules of bone. This seems to be one of those perplexing cases in which gross lesions give rise to few signs or symptoms during life. The vomiting does not seem to have been at all severe, and, of course, as regards the pain, we have only the patient's word. It is not stated whether any ophthalmoscopic examination was made. This, if it revealed optic neuritis, would complete the list of classical symptoms of cerebral tumour. There was a history of a severe fall some months before, and it seems possible that the softening was caused by localised periostitis due to this, or more probably to syphilis.

THE CASE OF DR. LAPORTE.

WE publish in another column a report of a case in which Dr. Laporte, of Paris, was sentenced to three months' imprisonment for alleged negligence in attending a woman when craniotomy had to be performed. It is true that under a law similar to that sometimes exemplified in this country in the case of first offenders the actual infliction of the penalty has been postponed for five years on condition of good behaviour in the meantime, and that if no cause of complaint arises during that period the penalty will not be inflicted. Still, the stigma of the sentence remains, and for that reason much indignation has been excited at the result of the trial. The evidence against Dr. Laporte appears to have been to a great extent of an unsatisfactory kind. It seems to have consisted of the impressions formed by the husband and two neighbours by watching what was done from outside the room through an aperture left by the door of the room not being quite closed. They formed the opinion that Dr. Laporte had applied the forceps in an improper manner. It is difficult to imagine anything more unsatisfactory. How could people unfamiliar with obstetric science possibly come to any useful conclusion on the subject, even if they had been in the room? To the eye of the layman the amount of force often used in difficult forceps cases might easily appear excessive, violent, and therefore improper. As Professor Pinard testified, the fact that the forceps was applied four times, and that nevertheless no lacerations of the vagina and neighbouring organs were found after death, sufficiently disposes of the suggestion that the instrument had been improperly applied. A less satisfactory part of the case is that when craniotomy was decided upon Dr. Laporte appears to have been without the proper instruments, and to have used a long needle instead of the perforator. The woman died two days after the operation, and at the post-mortem examination two perforations were found in the bladder which were supposed to have been caused by the needle. Even supposing these perforations to have

been caused by the needle, unless the peritoneal coat of the bladder was perforated it is not easy to see how anything worse than incontinence of urine should have resulted. The patient had always had difficult labours, and yet her husband seems to have left her all day long without skilled assistance and only to have sent for a medical man in the evening. It seems only too probable that the unfortunate termination of the case was due to leaving the woman to become exhausted before sending for help. At the same time the case appears to us to teach a useful lesson. If the medical man has not the proper instruments he is extremely likely to be held responsible for whatever happens. We think it would have been more judicious if, when he found craniotomy necessary and knew that he was without the instruments usually employed, he had sent to a lying-in hospital for help. In a large city such as Paris it is surely always possible to overcome a difficulty of the kind in this way.

PROSECUTION UNDER THE DENTISTS ACT.

A PROSECUTION under the Dentists Act has recently taken place at Lichfield, as is reported by our Birmingham correspondent. The plaintiff, a Mr. Morgan, was found guilty and fined £2 2*s.* with costs for using the term "dentist" and not being duly registered. The interesting feature, however, of the case was the endeavour made to obtain a conviction for "obtaining money under false pretences." The plaintiff's daughter had two teeth fitted, for which she paid the sum of 7*s.*, and at the time of the operation the defendant, on being questioned, stated he was Mr. Morgan, "the dentist." The prosecution proved that he was not a duly registered dentist and therefore not entitled to practise, and contended that he had by using the term "dentist" led the patient to believe that he was so registered, and had therefore obtained the money—namely, 7*s.*—under false pretences. The court dismissed the case, the defendant's counsel pointing out that in order to establish such a charge, not only was it necessary to prove that the statement relied upon was untrue, but also that it had influenced the person to pay the money and was made with the intention to defraud. The case is of some interest, not only to the dental and the medical professions, but also to the general public, and although we have no wish to question the decision arrived at in this case, we cannot help feeling that in the majority of instances the assumption of a false title by such irregular practitioners is done with the object of obtaining money under false pretences.

THE PROGRESS OF PUBLIC HEALTH SINCE 1837.

MEDICINE, in common with other branches of natural science, has undergone great development in every department during the sixty years of Queen Victoria's reign. Much light has been cast on the difficult problems presented by morbid phenomena, and there has, moreover, been a marvellous extension of the utilitarian applications of medical science, especially in the prevention of epidemic disease and in the improvement of operative surgery, which has been almost revolutionised by the discovery of anæsthetics and antiseptics, the net result being a great saving of life and diminution of suffering. To write the history of the evolution of sanitation as at present existing would be a task of no small magnitude, but many expositions of selected parts of the subject have from time to time appeared, one of the most recent being a presidential address delivered in the Council House, Birmingham, by Dr. T. R. Bailey, medical officer of health of Bilston, at a meeting of the Midland Branch of the Society of Medical Officers of Health. Cholera, typhus fever, and typhoid fever were the examples which Dr. Bailey employed to illustrate the efficacy of sanitation in reducing the incidence of disease, small-pox coming rather under the head of vaccination. On the subject of typhus fever he said: "In 1837 the disease prevailed in many parts of England, and in 1838 no less than 1271 per million of the population died from it. In the years 1846–48 a frightful epidemic occurred in Ireland on the failure of the potato crop. It spread to England, where, in 1848 786 cases were admitted into the London Fever Hospital alone. In that hospital as many as 14,589 cases were treated during the period 1862–70. In Glasgow, too, the death-rate per million for the five years 1855–59 was 1265, and for the five years 1860–64 1576. These figures show the extremely fatal character of this most formidable disease. Since 1869 this fatality has markedly and continuously decreased until now it has almost reached the vanishing point. In that year the deaths in England and Wales were 4281, in 1895 they were only 318, and the mean rate for the quinquennium 1891–95 had actually been reduced to 4 per million of persons living. ..... Surely if sanitarians could lay claim to no other achievement they would be entitled by this to an honourable place in the history of the Victorian era."

THE PREVALENCE OF TYPHOID FEVER.

UPWARDS of two hundred cases of typhoid fever have been notified in the town of King's Lynn, and the Local Government Board have asked the sanitary authority for an explanation. Contradictory statements are prevalent as to the probable cause of the outbreak, allegations being made against the main sources of the water-supply as well as against the filtering arrangements. The sanitary authority attribute the mischief to pollution of the supply by surface water after a thunderstorm. We are informed that there is also a scattered outbreak of typhoid fever in different parts of Essex which is attributed to the consumption of uncooked oysters from one of the beds at Brightlingsea which was shown in the official report on "Oyster Culture in Relation to Disease" to be subject to risk of sewage contamination. Dr. George Buchanan, who has been instructed by the Local Government Board to inquire into the occurrence, is already on the spot.

THE TREATMENT OF INCONTINENCE OF URINE IN CHILDREN.

A USEFUL paper on this subject, by Dr. J. A. Coutts, is published in *Treatment* of Sept. 9th, 1897. He states that the vast majority of cases of nocturnal incontinence can be relieved by waking the child at stated intervals to micturate. Restriction of liquids during the latter hours of the day will help. But in a few cases this seemed to keep up the disorder, the vesical mucous membrane being evidently intolerant of the highly concentrated urine so produced. In obstinate cases if the urine is of high specific gravity and acidity then the child should be encouraged to drink freely towards the end of the day. A signal success may be thus achieved. Of drugs belladonna still is foremost, but it often fails. This sometimes arises from the common method of giving several doses during the day. A much more efficient one is to give one single large dose in the evening, which can be gradually increased every four or five days, and when the incontinence ceases gradually diminished. If belladonna fails recourse must be had to other drugs. Of these he places most reliance on lycopodium, the merits of which have been as yet but little recognised. He gives twenty drops of the tincture three times a day to a small child, and increases the dose gradually to a drachm. Possibly more could be given. He knows of no poisonous properties attaching to the drug, but admits he may be at fault in that respect. In ordinary cases bromide of potassium has proved of less service to him than to some

others. But there are cases in which it may prove of the utmost benefit—those in which micturition occurs when waking is imminent or takes place. He has seen but little benefit from strychnine, but in combination with iron in cases accompanied with anæmia and lassitude it has been of great service. When drugs fail there remain other methods. In many instances micturition does not occur while the child lies on his side, but immediately when he turns on his back. Here a bobbin strapped over the lower spine is effectual. Circumcision is to be recommended only where there is undue tightness of the prepuce.

A NEW METHOD OF INDUCING SLEEP.

IN the *Journal of the American Medical Association* of Sept. 25th, 1897, Dr. J. B. Learned describes the following method, which he used in his own case. For some years he suffered from insomnia following a fall from his car. He tried many methods of treatment in vain—drugs, hot water and cold water internally and externally, friction, over-feeding and under-feeding, exercise, gymnastics, deep inspirations, and numberless mental occupations. At last the following method proved a success. The principle is to induce muscular fatigue by exercises carried out in bed. Lying on his back the patient first reaches for the foot and head board at the same time. He then raises his head half an inch; at the same time he breathes slowly and deeply about eight inspirations to the minute, which are counted. After about twenty inspirations, the head, which begins to feel heavy, is dropped. The right foot is then raised (the reaching for the boards and counting being continued) and similarly dropped when fatigued. The left foot goes through the same process. The muscles which are used in reaching for the head and foot boards are then relieved, and the body is elevated so that it rests on the head and heels. He then turns on the right side and reaches for the head and foot boards again, and raises first the head and then the foot as before. The same process is gone through on the other side. Thus eight positions have been assumed and a large number of muscles used. If sleep has not been induced the same cycle is gone over again.

PROPOSED AMENDMENTS IN THE NOTIFICATION ACTS.

WE have received from Dr. Meredith Young a special report on the working of the Infectious Diseases Notification Act which he has addressed to the Crewe Town Council. Whilst we agree with him that in certain respects the present Act needs alteration, we doubt if it should be modified in a number of the respects to which this report refers. Dr. Young would leave the fee at 2*s.* 6*d.* for a first certificate of notification, but proposes that if a second case of infectious disease arises in the same house "within one month from the date of such certificate," only 1*s.* should be paid for the second notification, and that the reduced fee should apply to all cases of scheduled disease, and not merely to cases of the disease primarily notified. For example, a case of scarlet fever notified by one practitioner on Oct. 1st is to be paid for at the rate of 2*s.* 6*d.*, and a case of small-pox occurring in the same house on Oct. 31st, although it may come under another medical practitioner's care, is to be paid for at the rate of 1*s.* The idea is that since one notification has brought the infected premises under notice the value of the second notification is decreased. If this means that, assuming the case of scarlet fever to have been removed to hospital on Oct. 2nd, the medical officer of health is to have the place kept under supervision until the expiration of a month, then we fear that the sanitary officers in large populated districts will have their hands very full; if it does not mean this, the notification of Oct. 31st will be of just the same value for public health purposes as that of Oct. 1st. Then, again, Dr. Young proposes that in the case of chicken-pox and small-pox, diseases that are often mistaken for each other, the former should be notified for 1*s.* and the latter for 2*s.* 6*d.* He could hardly have selected two diseases which give more trouble as regards diagnosis, especially in a vaccinated community; indeed, there is no less trouble involved in the ultimate diagnosis when the disease is decided to be chicken-pox than there would be if it were a case of small-pox. Other points that are equally difficult to be understood occur in this report, but we have not space to discuss them. We hope, however, that before any further action is taken in the matter the views of those who will be mainly affected by such changes will be ascertained, and that lessened fees will not be proposed precisely in those cases where the greatest difficulties to notifying practitioners arise. The subject evidently requires more attention than it has yet received in Crewe, but we are informed that the corporation have, since receiving this report, already memorialised the Local Government Board in the matter.

CRUELTY IN A WORKHOUSE.

THE case of an imbecile, aged sixty-three years, whose death occurred in the Bradford Workhouse, was recently investigated at a coroner's inquest. The deceased had been a week in the workhouse, when he was placed, being then in a feeble and restless condition, under the care of one of the attendants. This man, who it is admitted was somewhat the worse for drink, was observed by a ward assistant to strike the deceased, and, according to the testimony of an imbecile inmate, he otherwise violently assaulted him. The death of the latter occurred a day later, and a post-mortem examination showed that several ribs were fractured and that cerebral hæmorrhage had occurred. There was, however, no evidence connecting this hæmorrhage with external injury. The fine point between *post* and *propter* in this instance cannot perhaps be decided with judicial precision. We are consequently unable to define the exact relation between the death and the ill-usage which preceded it. Nevertheless, it is quite clear that the dead man had been treated with unjustifiable violence, and we have no explanation but this to account for his visible injuries. It is therefore surprising to find his attendant dismissed by the coroner and his jury with no further comment than a reprimand for his cruelty. The case, we should have thought, was at least one of aggravated assault and therefore punishable. It is at least to be hoped that the Bradford Workhouse authorities do not think so lightly of their servant's misconduct as to retain him in a position for which he is so evidently unfit. This case, moreover, points another lesson — namely, the duty of observing a more careful supervision over ward attendants as well as greater care in their selection.

THE PLAGUE IN INDIA.

WE have so frequently called attention to the increased occurrence of plague, and to the large increase of sickness and mortality in the towns and districts which had previously suffered from the epidemic, that there is no need to enter upon the subject at any length at the present time. Unfortunately, if we may judge from past experience of the disease in China and elsewhere, an increased prevalence of plague may be expected to occur during the ensuing winter season, and the slow and insidious way in which it is extending itself in India is also a very serious matter. Several Europeans have been attacked during the progress of the epidemic, and we now learn, through Reuter's agency, that it is officially announced that the disease which has appeared in the Jullundur district of the Punjab is true

bubonic plague. A cordon has been drawn round the infected area. Plague has also appeared in Hubbi and Wai, on the road to Mahabalishwar. At Poona 294 cases are reported from the hospitals and 115 at Bombay. A revived activity of the disease at the beginning of the cold weather was predicted; but the recrudescences in cities that have already suffered are generally of a much milder character than the primary outbreaks. It is the slow dissemination of the disease in rural districts and the difficulty of promptly dealing with it before the infection has gained any foothold in these places that renders the task so onerous and perplexing. Isolation and hospital treatment of those stricken with the disease and the application of effective sanitary measures, including the removal of filth and the opening out of infected localities freely to the air and sunshine, are the obvious remedies; but how to apply these promptly is surrounded with practical difficulties, for it takes time and money, a large staff of officials, a strong administration, and a numerous executive to do it, to say nothing of the provision of numerous isolation hospitals and camps. The Government of India will save themselves an enormous outlay of money and trouble, it appears to us, by devising, through the instrumentality of their medical and other officials, some organised system of dealing with the spread of the disease which is capable of being worked without leading to such an obstinate opposition and resistance on the part of the natives as to render their efforts futile.

PHOTOGRAPHY AT THE NEW GALLERY.

THE kodak, or some similar form of camera, has now become almost a necessity for the traveller and the holiday maker, for it is so portable and easy of manipulation that the many thousands who cannot sketch and yet are desirous of preserving some record of what they see, can by means of a portable camera fitted with films possess as many illustrations of their journeys as they please. Nor are the benefits of photography confined to these uses, for a knowledge of the art is specially useful in medicine and surgery. The Eastman Company, who were we fancy the pioneers in this country of film photography, have opened a very interesting exhibition of apparatus, methods, and results at the New Gallery. The various gradations of toning and colouring which are obtained by the use of different chemicals are quite a revelation, though we cannot agree with the endeavour which is obvious to make a photograph look as much as possible like a water-colour drawing. Compare even the most finished sepia print of a landscape or seascape with the prints of the Liber Studiorum or a sepia sketch of a master like the late Alfred Hunt, and what a difference there is: in the one there is the very soul of th eartist, in the other nothing. A photograph should be a photograph and not attempt to be anything else. Among the radiographs exhibited is a very perfect series of twelve prints of the same hand obtained at one sitting by super-imposing twelve plates one above the other. These were taken on the Eastman x ray paper with a three minute exposure. A variety of cinematograph films were also on show, and the Eastman Company have great hopes that as the apparatus is more perfected it will be possible to obtain radiograph cinematograph films of the joints of the human body, a procedure which would add largely to our knowledge of their structure and functions. Dr. Macintyre, of Glasgow, has for some time been working at this subject and has arrived at some very good results in the frog; but at present the difficulties with regard to human joints—e.g., the knee—have not been overcome. We have mentioned that portion of the exhibition which appeals most to medical men; but in the west gallery there are many very beautiful landscapes and other prints which are well worth seeing, notably Nos. 3 and 5, by Mr. A. Pringle, and No. 11, by Mr. A. Sutcliffe, though it must be remembered that even these are not water-colours.

CITRATE OF IRON AND STRYCHNIA MISTAKEN FOR CITRATE OF IRON AND QUININE.

A RECENT inquest which was held at Gainsborough illustrates the great care which is necessary in selling and dispensing drugs which are poisons and which resemble in appearance drugs which are more or less harmless. It would appear that a woman purchased from a druggist what was sold to her as two-pennyworth of citrate of iron and quinine, but which was in reality citrate of iron and strychnia. The error arose from the fact that the wholesale druggist who supplied the local druggist forwarded in response to an order a bottle labeled in accordance with the order, but containing the poisonous drug. From the evidence given by a representative of the wholesale firm in question it was elicited that citrate of iron and quinine is sent from the factory to the warehouse in tins, whilst citrate of iron and strychnia is received in earthenware jars. The two different combinations of drugs are kept in different rooms, but may be brought into the bottling-room for the purpose of being packed and labeled. The assistant of the local druggist who sold the drug stated that he weighed exactly two scruples, and that two-thirds of the bottle from which he dispensed it had already been sold. As the result of the inquiry the jury returned a verdict to the effect that the woman died from poisoning by strychnia, sent by mistake for citrate of iron and quinine to a local druggist by the wholesale firm of manufacturers in London with whom he usually dealt. They added a rider recommending that the wholesale firm should in future adopt a system in regard to their business of checking those who fill and label bottles, as adopted by many large firms in other trades. They also cautioned the assistant as to weighing in future the ingredients for medicines.

CHRIST'S HOSPITAL SCHOOLS AT HORSHAM.

THE ceremony which took place at Horsham on Saturday marks, it is to be hoped, the end of the unfortunate state of things which has perturbed the minds of the governors of Christ's Hospital and of the general public for some years past. It will be remembered that about seven years ago it was decided to remove the school from Newgate-street in accordance with the scheme of the Charity Commissioners under which the governors were empowered to dispose of the city site and buildings. The financial condition of the charity, as well as general considerations of health and sanitation, rendered this necessary, and a site was selected at Stammerham, near Horsham. Objections, however, from a sanitary point of view were made to this site, but the governors having already purchased it did not feel inclined to seek for a new one. By judicious sanitary measures it was pointed out that the existing drawbacks to the situation might be removed. These difficulties have now, we trust, been overcome, and the first step towards the erection of the new buildings was made on behalf of the Queen by the Prince of Wales on Oct. 23rd, when he laid the foundation stone with the same trowel that was used by his great uncle Frederick, Duke of York, on behalf of George IV., in 1825, the year in which that Prince laid the first stone of the great hall of the historic building in Newgate-street. The new site covers nearly 1200 acres and is situated on rising ground. The residential portion will have a southern frontage with ample interspaces between the house blocks, while the working portion will be placed in the centre and disposed at intervals about a cloistered quadrangle. At present it is intended to erect six house blocks, divided into two houses, each

for fifty boys and two masters, with domestics and staff. The blocks will be connected by a subway, ventilated and lighted throughout, and containing the pipes, mains, and electrical wires so as to afford facility of examination and repair. The buildings include an infirmary, sanatorium, library, and museum. The accommodation will be for 600 boys, instead of for 620 as originally intended, but it is hoped that eventually the buildings will be completed in accordance with the original designs. The London, Brighton, and South Coast Railway Company has undertaken to build a station on the estate, to fix cheap fares, and to provide other facilities for reaching the station.

THE DEATH OF THE DUCHESS OF TECK.

IN the Duchess of Teck, whose lamented death occurred last Wednesday morning, the nation has lost not only a most popular member of our Royal Family, but also a lady whose warm heart, untiring kindness, and practical sympathy with distress had been placed in evidence in a thousand ways. Her intimate association with numerous philanthropic projects for the good of the suffering and the weak, especially those which had for their object the relief of women and children in distress, had endeared her to the heart of the nation to a remarkable extent, so that her appearance on public occasions was always the signal for a reception the enthusiasm of which left no doubt as to the real affection in which she was held by all. It will be remembered that in April last Her Royal Highness underwent an operation for strangulated umbilical hernia at the hands of Mr. H. W. Allingham. The operation was completely successful, and every one was glad to see the Duchess's stout handsome face at the Jubilee festivities, when she was apparently enjoying her usual health. Latterly, however, she had been troubled both by a feeble heart and glycosuria—both pathological conditions being of some years' standing—and on more than one occasion when indefatigably fulfilling her part in some public function she has appeared to those around her to have been undertaking more than her strength warranted. The Duchess was taken ill on Monday morning last, when she was seen by Dr. Wadd, of Richmond. On Tuesday she manifested slight symptoms of obstruction, and in the course of the day was seen by Mr. Allingham in consultation with Dr. Wadd. In the evening the symptoms became suddenly severe, and Mr. Allingham was again summoned. It was then decided by Mr. Allingham, Dr. Wadd, and Mr. H. Randall Wadd that the only prospect of relief lay in an immediate operation to release a strangulation of the bowel. This was performed by Mr. Allingham, Dr. Hewitt administering the anæsthetic, and a strangulation was found in the neighbourhood of the old umbilical sac. The operation was immediately successful in that all the symptoms were relieved, and she came round from the anæsthetic, but two hours later she died from cardiac failure.

HYDROPHOBIA?

A DEATH attributed to hydrophobia from the bite of a dog formed the subject of an inquest held at St. Bartholomew's Hospital on Oct. 25th, the circumstances being remarkable from the fact that the veterinary evidence tended to negative the hypothesis that the dog suffered from rabies. The deceased was a man, thirty-six years of age, who was bitten on the ear by his pet dog on Aug. 29th. He was at once taken to a medical man, who cauterised the wound, but on Oct. 16th he had a fit and was conveyed to the hospital, where he died the following day. The house surgeon at St. Bartholomew's Hospital stated that at the time of admission the deceased was suffering from fits which were compatible with hydrophobia, and that the case terminated fatally in twenty-four hours. He had made a post-mortem examination and considered that hydrophobia was the cause of death; inoculation experiments had been performed with rabbits, but the results could not be known for some time. Mr. Albert Owen Hughes, M.R.C.V.S., said that he received the dog, a fox terrier, on Aug. 29th, but he saw no symptoms of rabies, "and with a little medicine it appeared well after two days." On the fourth day the witness was asked by the deceased to poison it, after which he made a post-mortem examination and came to the conclusion that the dog was sound. He had also inoculated rabbits, which were still alive. The witness further stated that if the dog was proved to be rabid he would be liable to a penalty for not reporting the case. The body of the dog was afterwards exhumed, and on Sept. 7th it was examined by Professor Bradford, of the Brown Institution, with a negative result. By this time, however, decomposition had set in. Rabbits were also again inoculated, and they were still alive. As the circumstances of the case seem to have afforded every conceivable opportunity for investigating the condition both of the man and the dog, it is much to be regretted that the medical and the veterinary evidence could not have been harmonised. The jury ultimately returned a verdict of death from hydrophobia.

THE Society of Anæsthetists will hold a conversazione at 20, Hanover-square on Thursday, Nov. 18th, commemorative of the fiftieth anniversary of the introduction of chloroform as an anæsthetic. An oration on "Empiricism or Science? Anæsthetics, 1847-1897," will be delivered at 8.30 P.M. by the President, Dr. Dudley W. Buxton. "Smoking," "Music," and "Exhibits" are other items of attraction set forth on the card of invitation.

THE inaugural meeting of the Midland Medical Society was held at the Grand Hotel, Birmingham, on Oct. 22nd, when Sir Richard Thorne Thorne, K.C.B., F.R.S., Principal Medical Officer to the Local Government Board, delivered an important and suggestive address on Soil and Circumstance in their Control of Pathogenic Organisms. This address will appear in an early issue of THE LANCET.

WE have just received the report of the Medical Officer to the Local Government Board, which we shall notice in detail in a future issue. Besides the regular reports the volume contains sundry appendices upon subjects of great scientific interest, amongst others one upon Snake Venom by Dr. Kanthack, and one upon Non-pathogenic Microbes liable to gain access to Food, by Dr. Cautley.

THE opening meeting and exhibition of the Roentgen Society will be held in St. Martin's Town Hall on Nov. 5th, at 8.45 P.M. Professor Sylvanus Thompson, F.R.S., will commence his presidential address at 9 P.M., prior to which all members and visitors are requested to be seated. All communications with regard to the new society may be addressed to Dr. David Walsh, 5, Pump-court, Temple.

THE Duke of Coburg is said to be interesting himself in the concert in aid of the funds of the Charing-cross Hospital, which is to take place on Nov. 19th at the Queen's Hall. Madame Albani's services are already promised, and the *World* suggests the probability of Royalty being again represented in the splendid band of the Royal Amateur Orchestral Society.

PROFESSOR JAMES DEWAR, F.R.S., President of the Chemical Society, will lecture on Thursday, Nov. 4th, at Burlington House, on "The Properties of Liquid Fluorine," "The Liquefaction of Air and the Detection of Impurities,"

and "The Absorption of Hydrogen by Palladium at High Temperatures and Pressures."

WE understand that Mr. Joseph Smith, chairman, and Mr. W. G. Dickinson, one of the honorary secretaries, have resigned their positions on that queerly named body the "Corporate and Medical Reform Committee."

THE sum of £1000 has been received for the endowment of a bed in Westminster Hospital in memory of the late William Farmiloe, as a memorial of a lifelong connexion with the city of Westminster.

HOSPITAL REFORM.

THE Earl of STAMFORD presided over a conference which was held on Oct. 21st at St. Martin's Town Hall under the auspices of the Hospital Reform Association.

In opening the proceedings the CHAIRMAN explained that the meeting had been convened to discuss the question of the administration of medical relief in the out-patient and casualty departments of hospitals and dispensaries. There were several societies working side by side, he said, which were working with the same object in view. He himself did not belong to the Hospital Reform Association, but he was an active member of the Charity Organisation Society. As evidence of the urgent need for reform Mr. Garrett Horder had compiled statistics which showed that in the twenty-two general hospitals of London no fewer than 897 000 out-patients were treated, and at the sixty-eight special hospitals 67,500, during the year 1895. When to these were added those treated by non-provident dispensaries the total number of out-patients reached about 1,000,000 of the population of London. A large proportion of these persons were able to pay for medical treatment. The Charity Organisation Society, after inquiry, had come to the conclusion that only about one-quarter of the whole number were suitable recipients of this form of relief, and a grave injustice was done to the general practitioner.

Mr. HORDER then read a short paper on the subject of Medical Reform, in which, after quoting a number of statistics tending to show that the system of out-patient treatment was greatly abused, he entered a plea for a hospital board in towns and expressed the opinion that provident dispensaries might do much to relieve the hospitals of needless work.

Mr. TIMOTHY HOLMES said that at many hospitals practically nearly every applicant received relief, but nothing could be done without the cordial support and coöperation of the profession as a whole. He was glad to see that the association was largely composed of general practitioners. The abolition of existing methods would, he believe, benefit the poor as well as the majority of medical men; but he feared that improvement would be slow, and he exhorted the supporters of the movement to be cautious and temperate in their conduct and language. He proposed the following motion:—

"That this Conference is of opinion that reform is urgently needed in the methods of administering out-patient and casualty relief in the hospitals and infirmaries of the United Kingdom, and that it be referred to the council of the Hospital Reform Association to form a committee to draw up a scheme for the better administration of such relief for the consideration of a future meeting of the Conference."

Dr. GLOVER seconded the resolution, and said that from his experience of the Hospital Sunday Fund he believed that the abuse of hospital relief was not only very large, but the evil was rapidly growing, and ought to be speedily dealt with. The existing system was hard both on the young consultant and the general practitioner. Hospitals were only for unusual cases, and even grave illnesses ought to be treated at home by the family medical man where home conditions were favourable. To effect an improvement they must secure the coöperation of the staffs of hospitals, and that would not be easy, as the out-patients were looked upon as valuable material for medical teaching. The great number, however, made good teaching impossible, and when the medical man had only a minute for each patient slovenly and inaccurate examination was inevitable. The hospital was the place of all others where such work should be thorough and leisurely.

Sir WILLIAM BROADBENT said he approved of the appointment of a committee, but thought that the staffs of the hospitals were powerless to reduce the number of out-patients. The question was really one of right and wrong, and it was a grave evil, for time wasted on slight ailments or undeserving persons was time stolen from the really poor. He could not quite agree that rapid diagnosis was necessarily an evil, as it enabled a man to gain wide experience of ordinary illnesses.

Sir HENRY BURDETT was opposed to the formation of a committee of investigation. A committee, if appointed, should be called upon to devise a new system. There was only one new element in the out-patient question and that was the increase in the number. But one remedy should not be forgotten—private treatment should be made more efficient. Was it not the truth that some hospital cases became so because of incompetent treatment in the early stages of illness by the general practitioner? Why should not post-graduates, men in actual practice, be allowed to visit the hospitals and thereby gain experience and knowledge? Most of the out-patients could pay something, and many of them would welcome the suggestion that they should become regular subscribers to the hospitals. Every hospital should have a registration officer to make proper inquiries as to means and should provide facilities for small subscriptions. He suggested an adjournment of the conference until next year. The subject had been much forced on the attention of the Hospital Sunday Fund and other bodies, especially by Dr. Glover, and he had reason to hope that some practical suggestions would soon be made which would meet the views of the meeting.

Dr. WARD COUSINS believed that the real sufferers by the present system were the charitable public. Hospitals were for urgent cases, not among the poor alone, but among all those who had not proper accommodation at home. People who were unable to pay for exceptional illnesses or accidents should be admitted, but admitted on the recommendation of the family medical man. Dr. Cousins strongly protested against Sir Henry Burdett's view that there was any excuse for the great abuse of the out-patient department in any want of efficiency in private practitioners. He could testify to an enormous improvement in medical education and in the efficiency of the medical profession. The right quarter to which to appeal was the governing bodies and committees of management.

After considerable discussion the motion was carried.

THE INDIAN RISING.

THE fighting on our Indian frontier during the past week has assumed the character of guerilla warfare, but the advance in force must soon take place now. The task imposed upon the Indian Government and the expedition is a more serious and difficult one than many people suppose, and we must make up our minds that the troops will have to encounter a good deal of hardship and hard fighting before it is over. The illustrations in the pictorial papers will give some idea of the great topographical obstacles and mountain passes of the country and an indication of the enormous difficulties of the expedition in the way of marching, transport, water-supply, and commissariat, which will have to be overcome before the force can reach Tirah. The weather is already becoming colder; there are great diurnal variations of temperature, and the troops are bivouacking without tents. The fact that they are reputed to be very healthy and, as we may believe, daily becoming hardier, shows what can be done in mountain air under the excitement of war if only men are well fed and well clad. The cold during the fast approaching winter will be severe and will tell seriously upon the native followers from the plains of India unless great care has been taken about their clothing and food. Native troops suffer a good deal on field service in the hills from pulmonary disease, but the robust little Goorkhas, who come from Nepaul, are not more affected in this respect than Europeans, and the Sikhs and Punjabi regiments, besides being fine, healthy, hardy soldiers, stand the climate fairly well. As might naturally be expected the

cold kills the native and the heat kills the European soldier serving in India. If the expeditionary force has to campaign in the mountains and valleys during the winter season a certain number of cases of frost-bite may also be expected to occur. But it may be taken for granted that every effort will be made to push the forces on to their destination before any extreme cold has set in.

We have received from India a copy of the medical arrangements for the Tirah expeditionary force, dealing with the organisation and administration of the hospital service, and including the arrangements provided for corps-units, field and general hospitals, field medical store depots, lines of communication, &c. It consists of a brief pamphlet of eleven pages, issued by Surgeon-Major-General Gore, principal medical officer of Her Majesty's forces, with the approval of H.E. the Commander-in-chief in India. Under the head of organisation it gives the composition of the different brigades of the main and of all the other columns making up the expedition as a whole, with the various sections of field hospitals, British and native, attached to and accompanying the different brigades. We may premise that a Field Service Medical Code was drawn up a few years ago and was issued with the authority of the Government of India in the military department for the information and guidance of everybody concerned, in which everything connected with the subject is fully detailed. This code of regulations, which strikes us as extremely good, is in the hands of all concerned, and medical officers and others are, of course, supposed to be well acquainted with it and to act upon it. The field hospital system in India has been drawn up with special reference to the exigencies of service in that country, although it is based upon the same principles as those of the British service at home and, indeed, of most continental armies. The field hospitals in India are equipped for 100 beds each, and divisible into four sections each complete in itself. These hospitals have distinguishing numbers and the sections are distinguished by letters above the number of the hospital to which they belong. This appears to us a very good and simple arrangement, and capable of making the hospital provision practically adapted to almost any occasion that can arise. To return, however, to the pamphlet under our notice, it lays down the number of hospitals and the sections thereof accompanying the various columns, divisions, and brigades, and those for the lines of communication, together with the general hospitals, British and native, at the base—viz., at Rawal Pindi, Nowshera, and Kohat, for the reception of the sick and wounded coming down from the various forces in the field. These hospitals provide accommodation for about 2000 patients. The principles governing the organisation of a field medical service are pretty well known. Briefly stated they are to provide for the immediate requirements of the force and to relieve it of all non-effectives; to transfer the sick and wounded (trifling cases excepted) in the direction in which they must eventually go—namely, to the base of operations—and to apportion the hospital establishment and equipment to the requirements of the force as a whole. The medical units employed in the operations against the Mohmands are directed to concentrate at Peshawar on the conclusion of that service. It would be impossible, of course, to enumerate the various provisions that have been made, but, speaking generally, the arrangements seem on paper to be very good and to have been well and carefully thought out. The conditions and circumstances of the expedition are of an exceptional character and, we need scarcely add, do not admit of a provision being made on the scale and of the nature employed in European warfare. As regards administration, the following principal medical officers have been appointed:—For the Army Staff: Surgeon-Colonel (with temporary rank of Surgeon-Major-General) G. Thomson, C.B., Indian Medical Service. Secretary: Surgeon-Major W. A. Morris, Army Medical Staff. First Division: Surgeon-Colonel E. Townsend, Army Medical Staff. Second Division: Surgeon-Colonel G. McB. Davis, D.S.O., Indian Medical Service. Line of communications: Brigade-Surgeon-Lieutenant-Colonel (with temporary rank of Surgeon-Colonel) W. E. Saunders, A.M.S. Peshawar Column: Brigade-Surgeon-Lieutenant-Colonel R. G. Thomsett, A.M.S. Kurram Movable Column: Brigade-Surgeon-Lieutenant-Colonel W. R. Murphy, D.S.O., I.M.S. The Rawal Pindi Reserve Brigade: While at Rawal Pindi the medical administration will be conducted by the Principal Medical Officer of that district.

METROPOLITAN HOSPITAL SUNDAY FUND.

IN the absence of the Lord Mayor Sir SYDNEY WATERLOW presided over a meeting of the Council of the Metropolitan Hospital Sunday Fund on Wednesday, Oct. 27th, which assembled in the Venetian Parlour of the Mansion House to receive a special report from the Distribution Committee in reference to out-patients.

Sir SYDNEY WATERLOW said he could not commence the business without expressing his own and their deep sense of grief at the loss which Her Majesty the Queen and the nation had sustained by the sudden death of the Duchess of Teck, who had always been ready to assist the cause of charity in every possible way.

Referring to the question of out-patients the Chairman said that twelve months ago the Council inserted a draft paragraph in their report to the constituents of the fund, but when the matter came up for discussion Dr. Glover objected to it on technical grounds stating that it was the duty of the committee to report to the Council, and that upon their report a report should be framed to be put before the constituents. The paragraph was therefore struck out and the matter referred to the Distribution Committee to be considered. For several years the Committee had had their minds very much affected by the discussions about the out-patients' departments of hospitals, and as far back as 1892 they had before them evidence with reference to the matter. Year by year a great deal of fresh information had been obtained, and especially this last year when they had had conferences with the representatives of thirty different hospitals. There was, however, quite a diversity of opinion among the different people from whom they had gained their information. As an example he read replies from some of the large London hospitals and quoted the remarks of speakers at recent meetings on hospital reform. He formally moved the adoption of the following report of the Committee of Distribution:—

> The committee of distribution having carefully reviewed all the evidence received by them during the last four or five years in reference to the out-patient departments of the several hospitals, and having recently obtained further information on this important subject, are of opinion that, where no person has been already appointed, efforts should be made to induce the governing bodies of hospitals to appoint efficient persons to make inquiries respecting patients attending out-patient departments with the view of preventing any abuse, and that the Council of the Hospital Sunday Fund should exercise the greatest caution before interfering with the internal management of hospitals.

Mr. F. C. CARR-GOMM said before the adoption of the report was seconded he would like to point out that there did not seem any such diversity of opinion amongst the hospitals as the Chairman had suggested. They did not admit that abuse existed to any great extent.

Sir EDMUND HAY CURRIE, who seconded the motion, said that while the treatment of the in-patients was much improved, no such improvement had been made with regard to the out-patients. This class was chiefly composed of wage-earning people, who were, he believed, ready to pay for treatment if allowed to do so.

Dr. GLOVER suggested that the report be entered upon the minutes. He submitted the following as an alternative motion:—

> That the Council of the Hospital Sunday Fund having before it the yearly statistics of the metropolitan hospitals and the report of the Distribution Committee on the out-patient department of hospital is of opinion that the large and increasing number of out-patients is a matter calling for the anxious attention of the managers of hospitals, and that this council, while disclaiming any wish to interfere with the internal management of hospitals, will look upon the appointment of efficient inquiry officers and other means of curtailment as points of merit in administration.

After some discussion, in which Sir HENRY BURDETT, the Hon. SIDNEY HOLLAND, the Rev. Dr. RIGG, the Rev. Dr. BARLOW, and the Rev. C. H. GRUNDY took part, the CHAIRMAN proposed the following:—

> That that this Council recommends that at the next meeting of the constituents in December, the following clause be added to the laws of the constitution: 'That where any hospital having an out-patient department has appointed a special and efficient officer for detecting any abuse in that department, it shall be regarded by the Distribution Committee as an important factor in determining the merits.'

Sir WILLIAM BROADBENT, in seconding the resolution, said that the step which was being taken to-day was a very

important one. It would be a very efficient check upon those hospitals which had no attached medical school but which actually competed with those that had for out-patients.

Dr. GLOVER was glad that the Council had taken this step. The very size of the meeting and the patience of its members showed that they were dealing with no ordinary question. Whether the figures relating to the number of out-patients were inaccurate as had been suggested or not the fact remained that the numbers were enormous and what struck him most was that the numbers were increasing. Whereas in 1895 the number of out-patients was 1,098,224. in 1896 they were 1,141 444, or an increase in one year of 43,000 persons. He quoted statistics showing the individual yearly increase in several of the large London hospitals and concluded by stating that the present action of the Council would tend to raise this Fund greatly in the estimation of the public.

The CHAIRMAN stated, in reply to a question by the Rev. M. R. Nelligan, that the attention of ministers of all denominations would be called to the matter in the annual circular issued to them. In answer to Sir Henry Burdett, he also stated on behalf of the Council that there was no desire to reduce the salaries of chaplains of hospitals.

The usual courtesies to the Chairman terminated the proceedings.

FORTY-SIXTH REPORT OF THE INSPECTORS OF LUNATICS, IRELAND.

THE Report commences with the usual summary giving the number and distribution of the insane in establishments on Jan. 1st, 1896, and Jan. 1st, 1897, respectively. This summary shows an increase of the insane under care during 1896 in all the different institutions receiving them, except workhouses, viz., an increase of 709 in district asylums, of 2 in the criminal asylums, of 13 in private licensed houses and institutions for the insane; while the number in workhouses has decreased by 120. The total increase for the year—609—was not so large as that for 1895 (702) but considerably exceeded the average for the past ten years, viz., 405. It is significant that an increase has taken place amongst the cases admitted for the first time to district asylums—the number being 106 in excess of the previous year—an increase in this class which has not been exceeded since 1890. The Inspectors attribute this increase to the transfer of cases from workhouses to asylums, as these cases would be returned as not having been previously under treatment in asylums and they would thus be added to the newly-occurring cases of insanity. It seems that in Ireland there is a large number of pauper lunatics wandering at large or residing with relatives. In the census returns of 1891 their number was estimated to be 4,970. The Inspectors are of opinion that the admissions to district asylums have been largely drafted from this class, and that the number of the insane under care is likely to go on increasing until the existing body of unregistered insanity has been absorbed. Further, they state that it seems certain that the accumulation of the registered insane in asylums has not yet reached its maximum. This is no doubt true, but all the admissions do not come under the category of chronic cases above referred to. An examination of Table V., Appendix A, reveals the startling fact that no less than 42·5 per cent. of the total admissions into district asylums were recent cases of insanity, in which the disease originated within three months of admission. No statistics are given by which a comparison can be made between this percentage and that of past years, but from a table on page 6 of the Report it is abundantly evident that there has been an almost progressive increase in the number of first admissions into district asylums since the year 1880, and that the number of first admissions was higher in 1896 than in any year during this period. In the face of such evidence it is more than probable that the increase of insanity in Ireland is not only apparent but real, and, sad to relate, it is fastening itself on a diminishing population. The Inspectors themselves are uncertain on the point, and cannot determine whether the disease is actually increasing or not. Surely they are in a position to ascertain the exact facts, and so end the uncertainty which exists on the subject. In 1880 the proportion of registered lunatics per 100,000 of the population was 250; at the present time it stands at the high figure of 416 per 100,000 of population.

There are twenty-two district asylums in Ireland. No new asylum was opened during the year; but the Antrim and Portrane Asylums are in course of erection. The admissions into the district asylums numbered 3329. The great majority of the cases were admitted under the provisions of the Act 30 and 31 Vic, cap. 118, s. 10, as dangerous lunatics. The Inspectors regret that this should be so, for the procedure is cumbrous and objectionable, inasmuch as it converts the lunatic into a quasi criminal and places difficulties in the way of obtaining any contribution towards his maintenance, either out of his own property or from his friends. The recoveries in the district asylums numbered 1217, the percentage on admissions being 37·2 as compared with 39·3 in the previous year. The deaths amounted to 926. The rate of mortality was slightly under that of 1895. In only 220 cases were post-mortem examinations made, a number which compares unfavourably with that of the preceding year. Three suicides and three fatal casualties were reported during the past year in district asylums. The small number of such deaths speaks well for the care and supervision exercised in the treatment of the insane in Ireland. On the other hand, overcrowding is general and there is a formidable list of cases of zymotic disease due to insanitary conditions. Allusion is made to the reappearance of beri-beri at the Richmond Asylum, of which so much has been heard of late. The Inspectors as a rule speak favourably of the management of the various district asylums. The Central Criminal Asylum at Dundrum continues to be administered with success. The condition and surroundings of the insane in Irish workhouses leave much to be desired.

THE ENTRIES AT THE METROPOLITAN MEDICAL SCHOOLS, 1897-1898.

THE figures in the following table have been kindly supplied to us by the deans of the various metropolitan schools in response to a circular letter from us asking the number of students who had entered at each school this October session:—

Name of School.	Full medical.	Perpetual.	Partial.	Preliminary scientific.	Special classes.	Occasional.	Dental.	Dental students who have entered medical school.	Total.	Total for session 1896-97.
St. Bartholomew's Hospital	—	97	—	22	69		—	—	188	165
Charing Cross Hospital	21	—	—	—	—	—	20	—	41	74
St. George's Hospital	49	—	—	—	4	—	—	—	53	37
Guy's Hospital	86	—	—	24	26	—	44	43	223	155
King's College Hospital*	15	—	—	—	—	—	—	—	15	184
London Hospital	68	—	—	10	47	—	—	—	125	148
St. Mary's Hospital	54	—	—	13	61†	—	2	—	130	138
Middlesex Hospital	14	—	—	—	—	17	15	—	46	76
St. Thomas's Hospital	53	—	—	10	19		—	—	82	63
University College Hospital	37	—	40	30	—	—	—	—	107	144
Westminster Hospital	9	—	10	—	—	—	—	—	19	23
London School of Medicine for Women*	29	—	—	—	—	—	—	—	29	51

* From King's College Hospital and the London School of Medicine for Women we only received exactly what we asked for—namely, the number of students who had embarked upon a full medical curriculum.

† Not counting men who joined for special classes. Including these the number would be 116.

It will be seen that at St. Bartholomew's Hospital the return is made under the head of "Perpetual Students." The figures in the last two columns of the table show the

comparative popularity of the various schools for the last two years as shown by the gross totals; but it is to the figures relating to the students who have entered for the complete curriculum that chief attention will be directed.

A NEW ELECTROLYTICAL APPARATUS FOR THE PRODUCTION OF CAUSTIC SODA.

SOME of our industrial processes seem nearly as clumsy and circuitous as the method employed by the mythical Chinaman for obtaining roasted pig. Of no process is this more true than of our methods for the production of caustic soda and bleaching powder. All that is required theoretically is to separate the two constituents of common salt; to combine the separated sodium with water on the one hand, and the free chlorine with lime on the other. To accomplish this it is necessary in the Leblanc method to heat the salt with sulphuric acid, producing hydrochloric acid and sulphate of soda. The latter material is heated in a revolving furnace with coal dust and chalk, the sodium carbonate produced being extracted from the evil-smelling vat-waste (calcium sulphide) and subjected to tedious purification. To form caustic soda the carbonate of soda must be boiled with lime, whilst the hydrochloric acid produced in the first part of the process has to be treated by the Weldon, Deacon, or other method for the production of chlorine. The vat-waste itself undergoes another process in which the sulphur is recovered. All this to separate the two constituents of common salt! The Solvay or ammonia-soda process performs the operation in a more satisfactory manner as regards the soda, but the whole of the chlorine is lost. The obvious way of overcoming these difficulties is by passing a current of electricity through a solution of common salt, and many inventions have been based on this principle; but, simple as it may seem, the task of breaking up sodium chloride by electricity is exceedingly difficult on the large scale. The two elements recombine, forming complicated secondary products, necessitating the use of a diaphragm to keep the sodium and the chlorine separate. The diaphragm and the electrodes conveying the current are attacked by the nascent materials, and the diaphragm places a great resistance in the path of the current, so that this method does not answer. The Castner-Kellner process, using an electrode of mercury, requires no diaphragm. The sodium is set free at the surface of the mercury and combines with it, forming an amalgam. By means of a rocking motion the mercury is continually circulated, the sodium being converted into caustic soda by contact with water. The latest electrolytic method using Rhodin's Patent Electrolytical Apparatus was demonstrated at the Hôtel Cecil on the 26th inst., and, as far as can be judged from the working of a laboratory model, seems to approach very near perfection, the efficiency claimed being 95 per cent. of the energy consumed. The apparatus is simple and ingenious in the extreme, and there is no obvious reason why it should not work as well on the large as on the small scale. It consists essentially of a flat, circular, iron dish, containing mercury, connected to the negative pole of the dynamo. A smaller, similar, but inverted dish of earthenware, the edge of which passes down into the mercury, divides the vessel into a central inner compartment and an annular outer chamber. In the former is placed a solution of common salt, whilst the latter is occupied by pure water. The earthenware dish carries a number of carbon rods which project down into the brine, these rods being connected to the positive pole of the dynamo. The whole arrangement of inverted earthenware dish and rods revolves, keeping the contents of the vessel, including the mercury, in continual circulation. As the current passes from the carbon to the mercury the sodium carried with it amalgamates with the mercury, which conveys it to the water in the outer compartment, where caustic soda is formed and hydrogen given off, this hydrogen being employed to heat the apparatus nearly to boiling point. The chlorine passes through a pipe in the centre of the earthenware dish and is conveyed to the lime chamber to make bleaching powder. If Rhodin's process becomes a success, as seems probable, not only will the cost of bleaching powder and caustic and washing soda be much reduced, but, by the elimination of older processes with their objectionable concomitants, sanitary conditions will be improved.

THE ELECTION OF A DIRECT REPRESENTATIVE.

WE have received the following letter for publication:—

To the Registered Medical Practitioners of England and Wales.

LADIES AND GENTLEMEN,—Accept my thanks for the support accorded to me at the recent election of a representative on the General Medical Council. I still adhere to the opinion that the general practitioners ought to be represented on the General Medical Council by a general practitioner, and shall be glad on any subsequent occasion to place my services at your disposal.

I remain, your obedient servant,

Winckley-square, Preston, Oct. 25th, 1897. JAMES A RIGBY.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6770 births and 3572 deaths were registered during the week ending Oct. 23rd. The annual rate of mortality in these towns, which had been 16·2 and 16·9 per 1000 in the two preceding weeks, was again 16·9 last week. In London the rate was 16·8 per 1000, while it averaged 17·0 in the thirty-two provincial towns. The lowest rates in these towns were 11·6 in Derby, 11·7 in Plymouth, 12·4 in Gateshead, and 12·5 in Croydon; the highest rates were 20·5 in Liverpool, 20·6 in Bolton, 20·8 in Preston, and 22·7 in Wolverhampton. The 3572 deaths included 429 which were referred to the principal zymotic diseases, against 437 and 415 in the two preceding weeks; of these, 92 resulted from measles, 82 from diarrhœa, 81 from diphtheria, 79 from "fever" (principally enteric), 49 from scarlet fever, and 46 from whooping-cough. No death from any of these diseases was recorded last week either in Croydon or in Halifax; in the other towns they caused the lowest death-rates in Oldham, Bradford, and Gateshead; and the highest rates in Burnley, Preston, Wolverhampton, and Sheffield. The greatest mortality from measles occurred in Wolverhampton, Burnley, and Preston; from scarlet fever in Sheffield; from whooping-cough in Swansea; from "fever" in Derby, Preston, and Sheffield; and from diarrhœa in Bolton, Preston, and Blackburn. The 81 deaths from diphtheria included 55 in London, 5 in Birmingham, 4 in West Ham, and 3 in Liverpool. No fatal case of small-pox was registered during the week under notice either in London or in any other of the thirty-three large towns; and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday last was 3585, against 3677, 3692, and 3725 at the end of the three preceding weeks; 342 new cases were admitted to these hospitals during the week, against 349, 400, and 440 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 176 and 268 in the two preceding weeks, further rose to 279 last week, but were 29 below the corrected average. The causes of 45, or 1·3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Bradford, Leeds, and in nineteen other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·8 and 19·1 per 1000 in the two preceding weeks, rose again to 20·3 during the week ending Oct. 23rd, and exceeded by 3·4 per 1000 the mean rate during the same period in the thirty-three large English towns.

The rates in the eight Scotch towns ranged from 13·3 in Paisley and 15·3 in Perth to 24·5 in Greenock and 24·6 in Dundee. The 604 deaths in these towns included 29 which were referred to diarrhœa, 27 to whooping-cough, 13 to "fever," 7 to measles, 6 to diphtheria, and 4 to scarlet fever. In all, 86 deaths resulted from these principal zymotic diseases, against 73 and 84 in the two preceding weeks. These 86 deaths were equal to an annual rate of 2·9 per 1000, which was 0·9 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had had been 12 and 20 in the two preceding weeks, further rose to 27 last week, of which 17 occurred in Glasgow and 3 in Greenock. The deaths referred to different forms of "fever," which had been 12 and 6 in the two preceding weeks, rose again to 13 last week, of which 10 were registered in Glasgow and 2 in Edinburgh. The 7 fatal cases of measles showed a slight further increase upon those recorded in recent weeks, and included 5 in Glasgow and 2 in Greenock. The 6 deaths from diphtheria corresponded with the number registered in the preceding week, and included 3 in Glasgow and 3 in Dundee. The fatal cases of scarlet fever, which had increased from 5 to 17 in the three preceding weeks, declined to 4 last week, of which 3 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 162 and 122 in the two preceding weeks, rose again to 144 last week, and exceeded by 28 the number in the corresponding period of last year. The causes of 28, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·9 and 24·0 per 1000 in the two preceding weeks, declined again to 21·2 during the week ending Oct. 23rd. During the past three weeks of the current quarter the death-rate in the city has averaged 22·4 per 1000, the rate during the same period being 16·1 in London and 19·0 in Edinburgh. The 142 deaths registered in Dublin during the week under notice showed a decline of 19 from the number in the preceding week, and included 13 which were referred to the principal zymotic diseases, against numbers declining from 39 to 14 in the four preceding weeks; of these, 6 resulted from "fever," 2 from scarlet fever, 2 from diarrhœa, 1 from measles, 1 from diphtheria, and 1 from whooping-cough. These 13 deaths were equal to an annual rate of 1·9 per 1000, the zymotic death-rate during the same period being 2·2 in London and 1·2 in Edinburgh. The deaths referred to different forms of "fever," which had been 4 and 7 in the two preceding weeks, declined to 6 last week. The fatal cases of scarlet fever, which had been 3 and 1 in the two preceding weeks, rose again to 2 last week. The mortality from diphtheria and from diarrhœa showed a decline from that recorded in the preceding week. The 142 deaths in Dublin last week included 30 of infants under one year of age and 25 of persons aged upwards of sixty years; the deaths of infants showed a slight increase, while those of elderly persons showed a further decline from recent weekly numbers. Four inquest cases and 3 deaths from violence were registered; and 40, or nearly a third, of the deaths occurred in public institutions. The causes of 18, or nearly 13 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-MAJOR CROFTS has been selected for service in West Africa. Surgeon-Major Maunsell is ordered for service in India. Surgeon-Major Mitchell takes over the charge of the Station Hospital, Newcastle-on-Tyne, relieving Surgeon-Major Dixon. Surgeon-Lieutenant L. A. Ward has embarked for Bombay. Surgeon-Major J. S. Green has embarked for Bombay in the *Dunera* at Queenstown. Surgeon-Captain B. J. Inniss has been placed under orders for service in India.

Brigade-Surgeon-Lieutenant-Colonel Robert C. Eaton to be Surgeon-Colonel, Supernumerary to the Establishment, such promotion to carry no increased pay or allowances prior to the date on which he will be absorbed.

INDIA AND THE INDIAN MEDICAL SERVICE.

The Queen has approved of the following promotions among the Officers of the Indian Medical Service:—Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels:—Bengal Establishment: John Scully and Adam Scott Reid. Madras Establishment: Preo Nath Mockerjee. Bombay Establishment: Matthew Lorenz Bartholomeusz. Surgeon-Lieutenants to be Surgeon-Captains:—Bengal Establishment: George Ramsay, David Waters Sutherland, William Selby, Thomas Arthur Granger, Harold John Kinahan Bamfield, John Wemyss Grant, Arthur Henry Moorhead, William Davey Hayward, Archibald William Forbes Russell, and William Elmsley Scott-Moncrieff. Madras Establishment: Charles Ross Pearce. Bombay Establishment: Vivian Boase Bennett, Hugh Myddleton Moore, and Dudley Cater Johnston.

The Queen has approved of the retirement from the Service of the under-mentioned Officers:—Surgeon-Colonel George Cumberland Ross, Bengal Establishment; and Surgeon-Colonel David Erskine Hughes, Bombay Establishment.

NAVAL MEDICAL SERVICE.

The following appointments have been notified:—Fleet Surgeon Alfred Patterson to the *Royal Arthur*. Staff Surgeons: William H. Norman to the *Venus*; William G. Jack to the *Hood*; and George A. Dreaper to the *Magicienne*. Surgeons: Rowland A. Kirby and Hugh P. Turnbull to the *Royal Arthur*; H. E. Tomlinson to the *Rambler*; John C. Ferguson to the *Cambridge*; Albert X. Lavertine to the *Ringdove*; William D. Andrews to the *Venus*; Matthew J. O'Regan to the *Alert*; Walter Bowden D.S.O., to the *Victory*: Ernest S. Tuck to the *Esk*; George Wilson, M.B., to the R.M.A. Eastney, Hilary C. Arathoon to the *Thrush*; Frederick A. Brice to the *Champion*; and Henry J. Hadden to the *Thunderer*.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain E. Jones, having retired from the Volunteers, ceases to belong to the Army Medical Reserve of Officers; Surgeon-Captain E. T. Crouch to be Surgeon-Major; Surgeon-Lieutenant Richard Harman Luce, 1st Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment), to be Surgeon-Lieutenant.

VOLUNTEER CORPS

Rifle: 1st Volunteer Battalion the East Yorkshire Regiment: Surgeon-Lieutenant H. G. Falkner to be Surgeon-Captain. 2nd (Earl of Chester's) Volunteer Battalion the Cheshire Regiment: Surgeon-Lieutenant T. J. Selby resigns his commission.

THE ARMY VETERINARY DEPARTMENT.

We have received the Annual Statistical and General Report, drawn up by the Director General (Veterinary-Colonel Duck), of the Army Veterinary Department for the year ending March 31st, 1897. According to the details mentioned the total number of animals on the home strength was 13,386 troop horses, 109 mules, and 1796 chargers, being slightly less than that of last year; the amount of inefficiency was 61·10 per cent., as compared with 60·01 last year and 67·35 in 1894. The number of deaths was 332, or 2·52 per cent. of the average strength, this proportion also being slightly in excess of those of previous years. Of the animals admitted into the infirmary the larger proportion were, as usual, taken in on account of surgical diseases and injuries; there being an increase over the number of last year in the animals suffering from diseases of the chest and air passages, and also amongst those admitted for general diseases. It is especially gratifying to find that there has been no sign of the reappearance of glanders either at home or in Egypt, and that a slight outbreak with the troops in Matabeleland was speedily stamped out owing to the energetic measures employed. This outbreak was confined to one case only, and no further sign of its spread having occurred has appeared. At the Army Veterinary School, Aldershot, the usual classes have been held for officers and farriers, the attendances and number of those presenting themselves for examination showing that both officers and men took great interest in the work done. The Vaccine Institute still maintains its reputation under the management of Veterinary-Major Longhurst and Veterinary-Captain Butler, the number of persons for whom lymph was cultivated during the year being 44,451. Since the opening

of the institute in January, 1889, lymph has been prepared for 335,047 persons. During the past year the percentage of successes with primary vaccinations was 96·59, and of re-vaccinations 89·40; in the foreign stations the percentage of successes was 82·37 with primary vaccinations, and of re-vaccinations 75·59. Seventeen calves were vaccinated during the year, thus giving an average of 2614·76 persons to each animal. The report concludes with the various diseases arranged in tabular form, and a list showing both the causes for selling the cast animals and the average length of service.

THE NILE EXPEDITION.

There has not been much to chronicle of late in connexion with the Soudan expedition. Little or no fighting has recently taken place, and the Sirdar (General Kitchener) has usually managed to keep all matters connected with his intentions and the operations of the expedition to himself. The most important work that has been carried on has been the construction of the railway which is to be run on to Berber. This will have a very favourable effect on the trade and commerce of the Soudan. There has been a successful gunboat reconnaissance to Metemmeh with the view of inspecting the Dervish camp and fortification works. The rule of the Dervishes has been a very cruel and tyrannical one, and the Soudanese population which have been subjected to it have everywhere welcomed the arrival of the Egyptian force. The Egyptian troops are healthy, and the medical service has had of late but little to do, but the heat and monotony of the life have proved trying. The progress of the expedition has been slow but sure so far, and it looks as if no military advance or undertaking of importance was imminent at the present moment.

DEATHS IN THE SERVICES.

Surgeon-General William Robert Cornish, I.M.S., C.I.E., F.R.C.S. Eng., Honorary Physician to the Queen and late of the Madras Army, on the 19th inst., at Worthing, in his seventieth year. The deceased officer received his medical education at St. George's Hospital, where he won, among other prizes, Sir Benjamin Brodie's gold medal for clinical surgery and subsequently was appointed to the East India Company's Medical Service as an assistant surgeon of the Madras Army in 1854. After holding various appointments he became secretary to the Director-General of the Medical Department in 1860. After holding that post for nearly ten years he was appointed sanitary commissioner to the Madras Government. In this appointment he rendered excellent service during the famine in Southern India in 1877, for which he received the C.I.E. In 1880 he became Surgeon-General of the Medical Department, and retired in 1885, when he was made an Honorary Physician to the Queen. Among his contributions may be mentioned "The Madras Census for 1871," "Prison Dietaries and Food," "Typhoid Fever in the Madras Presidency," "The Cleansing of Indian Towns," and the various annual reports on the causes of deaths in the Madras Presidency. The deceased officer also served for a time as a member of the Legislative Council at Madras, and helped to frame the present Local Government Bill of that presidency. He also assisted in compiling the Famine Code. The late Surgeon-General Cornish was an energetic and able officer of considerable ability and much respected.

Brigade-Surgeon John Kinahan, M.D. St. And., A.M.S., retired list, on the 30th ult., at Southsea, aged sixty years. He had long service at home, in India, China, Canada, the Mediterranean, and finally went through the Egyptian campaign of 1882 (Medal and Khedive's Star), afterwards taking part in the Nile expedition, from which he was invalided home after undergoing great hardships in the course of his arduous duties. He was universally liked and respected.

Surgeon-Major Thomas Allman Wethered, retired list, Bengal Army, at Paris, on the 17th inst., aged eighty-three years.

THE PHYSICAL STANDARD FOR CANDIDATES FOR ARMY COMMISSIONS.

We are glad to notice in the public journals an announcement on official authority which is very closely in accordance with the tenor of the article published in THE LANCET last week on this subject. The scale of physical equivalents is laid down for the general guidance of the examining medical board and not as a standard from which no departure is allowed. The medical board can exercise a discretionary power, subject to the approval of the War Office, in relaxing these requirements, and there is no reason why an otherwise eligible candidate should be rejected because he does not at the time of his examination fulfil these requirements—in regard to weight for example.

Correspondence.

"Audi alteram partem."

HOSPITAL REFORM.

To the Editors of THE LANCET.

SIRS,—I have the honour to inform you that a meeting of the medical profession and of others interested in the administration of the medical charities of Brighton and district will be held at the Athenæum, North-street, Brighton, on Friday, Nov. 5th, at 8.30 P.M., to discuss the best means of promoting Hospital Reform. Sir Joseph Ewart, M.D. St. And., F.R.C.P. Lond., has kindly consented to take the chair.

It may interest you to know that my association has made the following recommendations for the prevention of abuse in the out-patient and casualty departments of hospitals: (1) The abolition of subscribers' letters; (2) the limitation of the number of new patients to be seen by each medical officer; (3) the restrictions of out-patients to cases recommended by medical men; and (4) the casualty department to be limited to the reception of urgent cases of illness.

It will be within your recollection that my association convened a meeting of the medical men practising in Manchester and the surrounding district on May 25th last, when the following resolution was duly passed:

> That in the opinion of this meeting the time has arrived when an inquiry should be made into the mode of administering medical relief in the Manchester and Salford hospitals and dispensaries; and it is further of opinion that such an inquiry should be conducted by a committee which should be representative of all the interests concerned.

I now hear from Dr. E. Vipont Brown (who has been acting as honorary secretary) that such a committee has been duly constituted and will hold its first meeting on Wednesday, Nov. 10th. My association and THE LANCET have done their part and it must now rest with the local men to produce reliable evidence before this committee and to express their views as to the best means of improving the present system of medical relief.

Believe me, Sirs, faithfully yours,

T. GARRETT HORDER,

Honorary Secretary to the Hospital Reform Association.

Oct. 27th, 1897.

To the Editors of THE LANCET.

SIRS,—At the meeting of the Hospital Reform Association on the 21st inst., the Earl of Stamford, who was in the chair, brought forward figures showing that the persons annually receiving gratuitous medical relief in the metropolis only amounted to 1,000,000 in number, a total ascertained by taking only the out-patient figures from the various hospital reports. Roughly speaking, this means that from one-fifth to one-fourth of the whole metropolitan population obtains, by the assumption or allegation of poverty, free access to the medical charities primarily designed to help the deserving poor. These, however, cannot constitute more than a small part of this immense total, and the remainder are able to pay for the attendance they require, though evidently not unwilling to accept it as a charity so long as they can have it for the asking. These figures demonstrate a degree of pauperisation which it is terrible to contemplate, but one of the speakers at the meeting showed that there is a still lower depth of demoralisation. This speaker gravely advanced the monstrous proposal that persons who choose to represent themselves as "supporters of the hospitals" should, by paying some trivial amount—half-a-crown was the lowest annual subscription he mentioned—be provided with some kind of ticket *in evidence of their title to relief on demand*. In plain language this means that the poor are to be utterly thrust out of their medical charities in order that the hospitals may be reduced to the condition of vast medical aid associations, and that the already pauperised mass of well-to-do patients shall be enabled to buy, for a contemptible price, those medical

services which they now, at any rate, can only obtain as a free gift, and by affecting or asserting a totally fictitious poverty.

There is already abroad, even among those whom one would expect to have clearer ideas, an extraordinary notion that money which they profess to give freely to the service of destitution can also at the same time purchase for them a valuable consideration which is actually itself of far higher monetary worth, and this idea is in many cases pushed to an extreme of meanness barely credible. This new suggestion is the very apotheosis of that "letter-system" which has been largely responsible in fostering this spirit of astute philanthropy, and is already utterly discredited. Once adopt in any disguise the principle that any payment, great or small, secures a right to use the hospital, directly or indirectly, for the benefit of the person making the payment, and the transaction loses its charity and becomes an insurance. Practically this plan would result in two certain consequences—the benevolent would find some better object for their attention, and the work of the hospitals would become so enormously enlarged that these institutions would be forced bodily upon the rates, a socialistic experiment for which we are as yet, perhaps, hardly prepared.

I am, Sirs, yours faithfully,

Oct. 25th, 1897. H. H.

"BERI-BERI AND ERRONEOUS DIAGNOSES."

To the Editors of THE LANCET.

SIRS,—In an introductory lecture at St. George's Hospital Dr. Patrick Manson gives a long list of erroneous diagnoses as transcribed verbatim from the register of the Seamen's Hospital. In the list are anasarca, rheumatism, debility, pericarditis and fits, apoplexy, locomotor ataxia, myelitis, paraplegia, tachycardia, dyspnœa, cardiac diseases, asthma and anasarca, Bright's disease, progressive muscular atrophy, and hysteria. In answer to my inquiry, Dr. Manson has informed me that they are really taken from the register of the Branch Seamen's Hospital at the Royal Albert and Victoria Docks; and he asks me, if my experience does not agree with his, that I should publish it. This branch hospital contains eighteen beds, and his vague use without qualification of the term "seamen's hospital," has led members of the profession to suppose that he is referring to this institution with its 235 beds. I can find no such errors in our register, for at the worst they are merely incomplete diagnoses, giving a prominent symptom as sufficient for admission—e.g., dropsy, œdema of legs, loss of power in legs, anæmia and œdema, &c. We have admitted eighty-seven cases in the past four years. I would add that all the medical certificates, both at the branch and at this hospital, only come from the medical officers of one of our largest shipping companies.

It is because there is such a wide discrepancy between the experience at the two hospitals that I ask you to make this correction.—I am, Sirs, yours truly,

JOHN CURNOW, M.D., F.R.C.P. Lond.

Seamen's Hospital Society *(Dreadnought)*, Greenwich, S.E., Oct. 27th, 1897.

"THE POLICE AND FIRST AID."

To the Editors of THE LANCET.

SIRS,—With reference to a paragraph under the above heading from your Manchester correspondent in THE LANCET of Oct. 16th, although in very few police forces is the number of members holding the certificate of the St. John Ambulance Association greater than in Manchester, in many instances the percentage is higher. Much importance is attached by the Home Office, which requires an annual return of certificate holders, to the instruction of the police in rendering first aid "to the injured," and some interesting statistics in connexion therewith will be published in the first number of the *St. John's Magazine*, the official organ of the Order of St. John and its departments, which will appear on Jan. 1st next.

I am, Sirs, your obedient servant,

HERBERT C. PERROTT,
Chief Secretary, St. John Ambulance Association.

St. John's Gate, Clerkenwell, E.C., Oct. 21st, 1897.

THE PREVALENCE OF TYPHOID FEVER IN THE AUTUMN.

To the Editors of THE LANCET.

SIRS,—The autumnal season of the year is always of interest to medical men, as it is at this period in general we may expect an outbreak of typhoid fever to occur, and this year must be of especial interest, with the serious state of things existing at Maidstone; therefore it is a duty we owe to each other to render what aid we can to limit the spread of such disease or to point out any source of danger to be avoided for future years. I should like therefore to call the attention of my professional brethren to the games of the young, some of which I believe to be a great source of typhoid and scarlet fevers. I was for some time puzzled to know why boys should present more cases of typhoid fever than girls. The reason is not far to seek if we study the games themselves, especially in large towns, such as Sheffield, where that most abominable and insanitary arrangement of ash middens exists, and where the excrement from such places is simply shovelled out into the streets into large heaps, afterwards to be carted away, but leaving a considerable amount of excrement stinking for days lodged amongst the stones of the road, amongst which boys play at marbles, licking their fingers to prevent the marble from slipping whilst shooting from the hand, with the result that the germs of the disease are directly swallowed, and in no small quantities. Peg-top is also a prolific source of danger, for the whipcord used is drawn through the mouth to wet it and so prevent slipping; after the top is spun it is either thrown down or left dragging in the dirt until again used. These games affect boys and not girls, hence the difference in the numbers attacked in each sex, girls not as a rule playing at such games, which are usually on the go in autumn after cricket is over. Some weeks ago I saw a boy with typhoid fever and was asked by his parents how I accounted for his having it, as there was no case in the same street. I therefore asked his mother to let me see the trousers worn by the boy, and showed her how stinking the pockets were; they also contained marbles, &c., and dirt from the street. These games, to my mind, are a great source of danger to children living a town life. But how to remedy the evil is not very easy whilst such an abominable way of dealing with refuse is allowed to go on. I have pointed out this source of danger to the young, as I have not as yet seen any mention of games in any paper or book. Contaminated water, I much fear, is not the only source of typhoid fever, scarlet fever, &c.—I am, Sirs, yours truly,

W. SKINNER, L.R.C.P. Lond., M.R.C.S. Eng.

Sheffield, Oct. 21st, 1897.

"IMMORALITY AMONG SCHOOL BOYS."

To the Editors of THE LANCET.

SIRS,—Dr. Hime's article in THE LANCET of Sept. 4th has been worthily followed by a letter published on Oct. 2nd from "The Medical Officer to a Public School," who speaks of preparing a pamphlet to be put into the hands of every public schoolboy. This may be one of the best preventives, but is this not a subject which could be authoritatively dealt with by the Society of Medical Officers of Schools? One would not like to think that this society confined its usefulness to merely physical ailments. No other body of men is in such friendly contact with both parents and schoolmasters, and there are many details which might be settled by conjoint wisdom. What, for instance, is the average age when a boy is tempted to put forth his hand and eat of the tree of the knowledge of good and evil? Rev. the Hon. E. Lyttelton tells us in "Mothers and Sons" that the battle begins after the age of fourteen and a half years, and that impurity in a school takes its rise and receives its impetus from boys of fifteen or sixteen years of age who have a constitutional propensity to it and whose wills are feebly developed. Is this the experience of others? The suggestion that meat and alcohol are harmful at supper might be confirmed perhaps. There are many other points on which the utterance of medical experts would be useful, such as cubicles, circumcision, school library books, games, &c.

I am, Sirs, yours faithfully,

Cairo. F. M. SANDWITH, M.D. Durh.

HOSPITAL ABUSE.

(BY OUR SPECIAL COMMISSIONER.)

XIII.—SOUTHAMPTON.[1]

Harmony in the Ranks of the Profession.—A "Free" Hospital where the Patients Pay.—Overwork and Under-pay at the Dispensary.—The Eye Hospitals and the General Hospital.—Cases of Abuse.—Application of a Wage Limit.

THE position of the medical practitioners in the town of Southampton at the present moment is very favourable to the formation of a strong union. The only thing, perhaps, that is wanting is a strong man to take the lead. That, indeed, is one of the main difficulties of all such movements. The two or three practitioners whose position, reputation, and influence are such as to mark them out as the natural local leaders of the profession are very often too much occupied or perhaps too aged to move actively in the matter. Others, it must be confessed, are too comfortable in the enjoyment of a good position to sacrifice their peace of mind and quiet by assuming the responsibilities and encountering the worries that befall organisers and initiators of a movement. But in Southampton these troubles should be comparatively slight, at least at first, for, in contrast to so many other towns, the members of the profession are wonderfully united. There are no feuds between them. A grievance has arisen, and it has served the good purpose of showing how closely allied in spirit are the forty or so medical men who practise in Southampton. It is not part of the present subject to deal in full with that grievance. Besides, in THE LANCET of Oct. 20th, 1894, some details are given. They relate to the so-called "Women's Free Hospital for Special Diseases." The number of operations and the result of these operations were unfavourably criticised. The method of electing the committee of the hospital, the absence for a considerable time of a chairman, and many other circumstances all seemed most irregular; but these questions are not intimately connected with the present inquiry. The main point on which I wish to lay stress is not the grievance in itself, but the fact that it brought the members of the profession together and showed that great harmony of feeling existed between them. Nevertheless, there is one phase of this grievance which does concern the present investigation—namely, its economic side. Mr. J. F. Bullar read a paper before the Southampton Medical Society in November, 1894, giving full details concerning the Southampton Women's Free Hospital. From this communication it would appear that though the first report of the hospital acknowledges that the work was commenced in November, 1889, nevertheless no printed report was issued till May, 1892. The earlier reports, that is, up to 1894, make no mention of any meeting of subscribers or of rules for election of the committee of management. Mr. Bullar in his paper says: "It appears, from absence of any statement to the contrary, that the committee originally elected itself and has continued to do so since, and that what is referred to as the 'establishment of the hospital' began and ended in the hiring of a house. The individual members of the committee and of the medical staff appear to be unhindered by any rules from taking what view they please of their responsibilities and of the situation generally, and I was recently assured by a member of the committee that the hospital was the out-patients' department and he utterly repudiated all responsibility for the in-patients." The honorary secretary had admitted that he had not access to the books in a manner that showed a want of responsibility on his part for the in-patients, yet the first report issued by the hospital authorities states that "a ward has been efficiently fitted up at the expense of Miss Pickard with all modern appliances for the reception of in-patients." After describing a futile effort to get a copy of the rules Mr. Bullar expressed the opinion that there were "no rules relating to the constitution and government of the hospital, and that it is even a matter of doubt whether the in-patient department is a public charity or a form of private practice which the committee take upon themselves to recommend to the public."

This last sentence brings us to the economic phase of the question, for it is surely most necessary to see that a charity is not converted into a hunting ground for private patients. Mr. Bullar then went on to say:—

"To understand this arrangement we must turn to the balance-sheets. There we see that the committee derived their income from subscriptions, donations, collections, and such like, and that among other expenses they paid the rent and the taxes of the house used as a hospital. They received no rent from Mr. Eliot on account of the rooms he furnished for his private patients, but paid it for him out of the funds of the charity. There is no mention in the accounts of any payment of £2 2*s.* a week for the in-patients, and therefore as the arrangement 'answered well' it is to be inferred that the patients themselves provided the money for their treatment in the Free Hospital. In the absence of any accounts it is impossible to tell whether Mr. Eliot lost or gained by having the rooms rent free for his private patients and receiving two guineas a week for the hospital patients, but it is quite evident that the term 'free' is inapplicable to the hospital. In the last report the committee state that 'as far as possible patients are encouraged to pay a sum, however small, per week to go towards their actual expenses,' and the medical officer states: 'A good many patients have gladly contributed a small weekly sum.' But in the balance-sheet no mention of the sums or of the 'actual expenses' of the in-patients is made. It appears that when any patient comes to the out-patient rooms in Portland-terrace the medical officer decides whether she ought to be an in patient, and if he thinks she ought the committee hand her over to the medical officer for treatment at his private house on an understanding that she is to pay to him personally as much as she can up to two guineas per week. They then cease to inquire or trouble themselves about her or to feel any responsibility in the matter, quite ignoring the fact that if they had not written favourable reports of the hospital and called it free the patient would probably never have applied for treatment in Portland-terrace."

Such was the economic side of the grievance which served to rally the medical practitioners of Southampton and triumphantly demonstrated the great unity of feeling that prevailed among them. This agitation brought about some alterations in the management of this so-called free hospital. I have now before me the sixth annual report published in 1896, and here are set forth rules by which the hospital is governed. The first notable change is that the word 'free' has been dropped, for rule No 1 says: "That the charity be called the 'Women's Hospital.'" The next article deals with the election of medical officers by the committee and their qualifications. Article 5 stipulates that the charity shall be governed by a committee of management consisting of the chairman, treasurer, secretary, medical officers, and fifteen subscribers to be annually elected by all subscribers of 10*s.* 6*d.* and upwards. This committee is to meet quarterly and a general meeting of all subscribers is to be held annually. Patients are to be admitted by letters of recommendation, and subscribers of £1 1*s.* a year are entitled to seven such letters. Subscribers of 10*s.* have three such letters, and one letter is given in exchange for the modest subscription of 5*s.* The position of in-patients, which was formerly so vague as to be almost incomprehensible, is now clearly defined by rule No. 12, and is as follows: "That the committee of management of the hospital shall pay Dr. Eliot £2 2*s.* per week for each bed when occupied, as the hospital has no in-patients' department of its own. Any money that the patient may be able to pay, or that is paid on behalf of a patient, to be put to the credit of the 'Women's Hospital.'" Turning from the rule to the report we find that during the year 1896 there were 107 new cases, giving a total number of 951 attendances treated as out patients. Then it is stated that "the number of in-patients has dropped to fourteen. This is mainly due to lack of funds which prevented us taking in some cases which would have derived great benefit from rest and

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Sept. 26th, 1896, Plymouth and Devonport; (2) Oct. 10th, 1896, Exeter; (2 *concluded*) Oct. 17th, 1896, Exeter; (3) Oct. 31st, 1896, St. Thomas's Hospital, London; (4) Nov. 14th, 1896, Liverpool; (4 *continued*) Nov. 21st, 1896, Liverpool; (4 *concluded*) Dec. 12th, 1896, Liverpool; (5) Jan. 2nd, 1897, Manchester; (5 *continued*) Jan. 9th, 1897, Manchester; (5 *concluded*) Jan. 23rd, 1897, Manchester; (6) Feb. 6th, 1897, Leeds; (6 *concluded*) Feb. 13th, 1897, Leeds; (7) April 17th, 1897, Coventry; (8) May 1st, 1897, The Royal London Ophthalmic Hospital; (9) May 8th, 1897, France, United Action and Legislative Action; (10) May 15th, 1897, Leicester; (11) June 5th, 1897, Nottingham; (12) July 31st, 1897, Birmingham; (12 *continued*) Aug. 14th, 1897, Birmingham; (12 *continued*) Sept. 4th, 1897, Birmingham; and 12 (*continued*) Sept. 18th, 1897, Birmingham.

nursing." The balance-sheet makes no mention of the payments, if any, made by these fourteen patients. Nor on the expenditure side is there any mention made of the £2 2*s.* per week which presumedly were paid for these fourteen patients. Indeed, the income, due mainly to collections and subscriptions, amounted to only £152 17*s.* 2*d.*, and the principal expenditure was £113 0*s.* 2*d* for drugs and dispensing. Perhaps, however, Rule No. 12 is no longer applied in full, for in another part of the report the following passage occurs: "Owing to an alteration in the management of Rockstone House the committee have made arrangements with the manageress, Sister Hammond, for patients to be received as in-patients to that institution upon very advantageous terms. Owing, however, to lack of funds the committee have been unable at times to send out patients as in-patients." Thus the fourteen in-patients may have cost less than £2 2*s.* a week. Still, the report does not explain who paid this cost, whatever it may have been.

That abuses may creep in where the accounts given are so vague and incomplete must be obvious to everyone. It is true that there is a passage in the report which says: "We take this opportunity of asking all who give out-patients letters to try, as far as possible, to give them only to deserving poor women who are suffering from some trouble peculiar to their sex." But then if this recommendation was strictly observed, and the patients were really poor, it becomes still more difficult to explain how the cost of their maintenance as in-patients was met. All this surely suggests the necessity of something more than an amateur inquiry, and this is a point on which several medical men at Southampton strongly insisted. What, they asked me, is to be done when the members of the profession in any locality believe that an investigation into the management of a hospital is necessary? There is no authority entitled to make such an inquiry. The English law, the British Government, provides no machinery for this purpose. A few clergymen, a few benevolent ladies, can block the way to any such investigation. If patients are attracted to a hospital under the impression that it is a charity and are then made to pay, is this not an indirect method of advertisement contrary to professional rules? So far as the Women's Hospital of Southampton is concerned I found that the chairman of the committee of management (the Rev. A. F. Forbes) was far from entertaining any suspicion of this commercial aspect of the case. Instead of making any profit out of paying patients he explained that the medical officer, Mr. Eliot, undertook to pay out of his private resources the difference of cost between what was charged for the maintenance of an in-patient and what the hospital committee could afford to pay for that purpose. He was therefore under the impression that the hospital owed a great deal to their medical officer and were financially in his debt. This evidence as to the disinterested conduct of the medical officer does not, however, effect the principle at stake. If the result of the application of Rule 12 quoted above has not been of financial benefit to the medical officer, or to the home where the in-patients are received, this is not the fault of the rule, but of other circumstances. With such a rule, what at first sight appears to be a charity may well be converted into a commercial enterprise. This therefore constitutes a genuine hospital abuse, against which the members of the profession at Southampton, and Mr. Bullar in particular, did well to protest. Mr. Ingalton Saunders, honorary secretary of the committee of management of the Southampton Women's Hospital, seemed to have a clearer perception of the position, for in answer to my questions he very emphatically declared that the home where in-patients were received was absolutely a distinct institution. The connexion between the Women's Hospital and the home had been broken off. If an operation was deemed necessary the committee of the hospital decided whether they could afford to pay for the patient, and, if so, sent her to the home. Doubtless the home and the hospital are now quite separate institutions. This, however, does not prevent the fact that the hospital is still, to some extent at least, a recruiting ground for the home, and yet the hospital and its committee cannot exercise any control over the home, since they repudiate the home and qualify it as a separate institution. The patient, however, is not likely to make these subtle distinctions. The Women's Hospital is recommended to her in preference to the General Hospital because it is a special hospital, and the names of the medical officers, the patrons, and committee of management inspire confidence. The patient therefore obtains a letter of recommendation, but finds she cannot be treated as an out-patient and is therefore recommended to go to the home and is asked to pay for her maintenance. Naturally she concludes that this is quite a normal proceeding and that the home is part and parcel of the hospital to which she has applied. Doubtless the home is admirably managed and the patient is highly gratified by the treatment she there receives; but if the reverse were the case the committee of the hospital would be blamed for that over which they have no control. Besides, why should a hospital recommend one particular home? Such cases could be treated elsewhere. The thing is wrong in principle, though in this particular instance it may in practice work satisfactorily; but still, if the principle is admitted there is no limit to the abuses that may result.

The members of the profession at Southampton having been brought together by the necessity of dealing with the question of this women's hospital, also took action with regard to other matters. In April, 1894, Sir Dyce Duckworth went to Southampton and read a paper on the Relations of Medical Advisers to Provident Clubs and Medical Aid Associations. A circular was then issued, and thirty-seven Southampton practitioners signed a declaration to the effect that: "(1) club doctors are underpaid for their work; (2) that an increase of payment would benefit the club members as well as the doctors." In Southampton and the adjoining districts of Shirley and Portswood there were at that time 38 medical practitioners. Questions were addressed to all these gentlemen, and answers received from 33. These replies showed that there were 2353 members of private clubs organised by the medical men themselves; 7196 members of the Foresters, Oddfellows, and other benefit societies; and 2203 members of medical aid associations, giving a total of 11,752. Then the Southampton Dispensary had 5808 provident members and 1712 recommended, that is to say, charity, patients. The Poor-law medical officers' returns indicate that they had 1065 indoor pauper patients and 3315 outdoor patients. Thus out of a population of about 80,000 no less than 23,644 were shown to be receiving medical attendance either for nothing or at most for an annual subscription that was often less than 4*s.*, and rarely more. It was satisfactorily proved that many of these patients could have paid the usual fees. The committee appointed by the medical profession of Southampton in the year 1894 to inquire into the matter reported that during the course of the year there were 5800 provident—that is, paying—members of the Southampton Dispensary, and they happened between them to be ill no less than 8117 times in the course of the twelve months. In attending these cases the medical officers had to make 4769 visits to the patients at their own homes and there were 12,861 attendances at the surgery of the dispensary. But if we add those patients who went with letters of recommendation, and who therefore did not themselves pay anything, there was a grand total of 10,324 cases of illness among 7512 patients. These patients were seen about 27,000 times, and the medical officers had by night and day to pay some 8000 visits to the homes of the patients. This involved travelling over several thousand miles, and for this immense amount of work they received between them the munificent sum of £575, or about 1*s.* 5*d.* for each case of illness. As the report very truly observed, few of these patients worked so hard for so little pay. Now as subscribers can send seven patients for 1 guinea this amounts to only 3*s.* per case; but there is a rule to the effect that no medical officer shall receive more than 2*s.* per case. Thus the medical men are obliged to attend perhaps for weeks on a patient, and yet cannot receive more than 2*s* unless the illness lasts more than two months. It would perhaps be better if the medical man received nothing at all, for he would then meet with an amount of consideration he does not now enjoy.

Speaking to one of the local practitioners who had taken an active part in this investigation I found that, in his opinion, a strenuous effort ought to be made to revolutionise the British Medical Association. He did not object to forming a local union of medical men, but did not see who could take the lead in such a movement; therefore it might be easier to utilise the British Medical Association as it was an organisation already in existence. Portsmouth was the local centre of the Association, and in this district there were some 300 members, yet at the annual local meeting only about 40 out of the 300 members attended. This annual meeting elected its representative on the General Council of the Association. But how was this done? The same person used to be re elected year after year

without any inquiry as to his views. The vote was given in a sleepy sort of manner and as a mere matter of form. An alteration had now, however, been effected. Voting papers were sent round and the candidates had to draw up a programme and explain their views. This was a step in the right direction. On the other hand, the Southampton branch of the British Medical Association only meets once a year. It is thought not necessary to meet more frequently because its members are also members of the Southampton Medical Society, which meets every month during the winter season. This purely local society has on several occasions discussed ethical questions and notably the question of club practice. Now as the Southampton Medical Society comprises not only the members of the British Medical Association, but practically all the practitioners of the town, this society seems to be the right centre from which to form a union, a fighting union, whose mission it shall be to defend the economic interests of the profession. Such a union could vigorously take in hand the question of club practice and hospital abuse, and to strengthen its position place itself in communication with the other and similar unions that have been formed in various towns. That there would be plenty of work for such a union to accomplish may be gathered from what has been related above, but more remains to be said.

There is, for instance, the General Hospital known as the Royal South Hants Infirmary. Here already a reform has been accomplished, thanks to the united feeling prevailing in the profession. Formerly all donors to the hospital voted for the election of the members of the medical staff. The majority of these subscribers knew little or nothing concerning the individual merits of the candidates. Now a rule has been passed by which any medical man who canvasses is by that fact alone disqualified to act as a member of the hospital staff. The staff is no longer elected by all the donors; they only elect at the annual meeting a committee of selection composed of five medical men who are out of practice, and therefore less likely to be biased, and ten members of the committee of management, including the chairman and representatives of the medical and surgical staff. A committee thus composed may fairly be considered as competent to judge, for it should possess the necessary personal and technical knowledge to decide judiciously who can best fill any vacancy that occurs on the medical staff.

If the method of selecting the medical staff has thus been reformed, why should not the rules for the admission of patients be also altered and improved? At present, except for cases of urgency and dental cases, all patients must procure a letter of recommendation. This letter contains the terms, "whom I believe to be a fit object of charity," but there is no definition as to what constitutes a fit object of charity. Sometimes a member of the staff may ask the patient himself whether he considers that he is a fit object of charity, and the patient almost invariably answers in the affirmative. There occurred recently, however, a somewhat amusing exception. A young woman presented herself in such a very stylish and elegant dress that the attending physician could not help asking if she thought herself an object for charity. The patient, taken aback by the question, manifested signs of the keenest indignation, protested that she was not an "object" at all, and, deeming that she had been grossly insulted, withdrew with great dignity. Whatever the answer of the patient may be, the medical man has not time, however, to follow up the matter by making investigations at the patient's home, so he is obliged to take for granted all that he is told. Thus there is practically no check, and if a medical officer refuses to take a patient the subscriber who gave a letter of recommendation to the patient will in all probability complain and perhaps refuse to renew his subscription. There can be no question as to the existence of abuse because the subscribers do not themselves make any inquiry before they give recommendations. The fear also of offending the subscribers is so great that on several occasions even incurable cases have been accepted so as not to give offence. One lady recently wanted to withdraw her subscription because the hospital was too full to take in a patient whom she had sent. It has been noticed sometimes that patients who could walk came to the hospital in cabs, thus showing that they were not particularly poor.

Some of the benefit clubs subscribe to the hospital, and therefore conceive that they have the right to send their members as patients even though they may be in very good circumstances. Thus there is a prominent tradesman who belongs to one of these clubs, though he is rich enough to allow his son to keep a cutter yacht. Other well-to-do tradesmen are members of benefit societies and may therefore claim the right to go to the hospital and thus utilise the letters of recommendation which their benefit society obtains in exchange for its subscription. Similar complaints were made at the Eye Hospital. One case was mentioned to me of a man who owns several shops. He went up to the Royal Ophthalmic Hospital at Moorfields, London, but found that he had to wait so long that he transferred his attentions to the Southampton Eye Hospital, where he explained that they had kept him waiting too long in London. It never occurred to this patient that if he could afford to travel backward and forward to London he could afford to pay a fee, and when he was told he ought not to go to a hospital at all, whether in London or Southampton, he replied, "Oh, yes, I ought; they all do it." More than one of the local practitioners told me that several well-to-do people went up from Southampton to the London hospitals. So great, indeed, is the abuse of the hospitals that at a meeting of medical men held some two years ago a "sixpenny doctor" complained that there were more cabs outside the hospital than outside his surgery, and that he had lost many of his patients who, rather than pay him sixpence, had gone to the Eye Hospital, which he thought was as much abused as the General Hospital. Some cases of abuse at the Eye Hospital have, however, been detected and stopped. Thus a little while ago a farmer came. The hospital authorities wrote to the medical man of his village and ascertained that the patient possessed fifty cows, some horses, and several fields. On being told to bring written evidence from his village as to his poverty the patient thought it best not to return to the hospital.

The Southampton Dispensary and Provident Medical Institution does attempt to prevent abuse. According to Rule No. XVII., "no Governor's letter shall be given to a patient the head of whose family is at the time in receipt of more than twenty-one shillings a week, unless the head shall have more than three children under fourteen years of age, or more than four persons dependent upon him, then the limit shall be twenty-five shillings; but the honorary secretaries shall have the power to admit any such case as they may think deserving." This rule of course applies to the charitable work of the dispensaries. The provident members are governed by the following rule: "No member of a family the head of which is in receipt of over thirty shillings per week shall be admitted as a provident member except when the number of children under fourteen years of age exceed three, in which case the limit shall be 35s." Some doubts, however, were expressed to me as to whether this wage-limit was properly applied. It is very difficult to tell when a member has improved his position. A woman the other day confessed that her husband was beyond the limit, so the case was referred to the committee. The practitioner who related this incident to me seemed to doubt whether the committee were well acquainted with their own rule and fully understood its importance. There was a tendency to leave the matter in the hands of the medical men on the ground that it was their business and did not concern anyone else. Though these opinions were expressed by a medical practitioner who had good opportunities of being well informed, they did not harmonise with the views expounded by one of the honorary secretaries of the dispensary on whom I called. He pointed out that the medical men were at liberty to report to the committee any case of abuse that they might observe. Their report remained secret, the committee alone appeared in the matter and it was the committee, and not the medical man which incurred the odium of being accused of hard-heartedness. The committee was very anxious to discover any member whose position had improved, for not only would they strike him off the books as a member, but would press him to become a subscriber. Many members had thus been struck off, but they were unfortunately more prone to write grateful letters for the care they had received in the past than to promise subscriptions for the future. When any complaints were made the committee undertook to institute a full investigation and assumed all the responsibility. If the medical men thought there was still any abuse the honorary secretary earnestly hoped that such cases would at once be brought to the notice of the committee. The wage limit was clearly set forth in the rules, and it was their desire to strictly apply the rule.

Thus it will be seen that at Southampton some good work

has been done, some improvements have been effected, and the profession is awakening to a sense of its duties, its dangers, its responsibilities, and the necessity of taking action. But all this is vague and disorganised. The good feeling and the good intentions that prevail must be crystallised in a concrete form. The Southampton Medical Society should take the initiative and establish a Medical Union to defend the material interest of the profession.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Important Prosecutions.

AT Lichfield Police-court, on the 20th inst., a so-called dentist was charged with having obtained 7*s.* from a widow by falsely pretending to be a dentist, and with having, contrary to the provisions of the Dentists' Act, unlawfully, wilfully, and falsely taken and used the name of a dentist. This indictment sounds very emphatic, and counsel on either side sought to make their case good with the usual arguments of such occasions. The upshot was that the magistrates dismissed the charge of false pretences at once; on the second charge the defendant was fined two guineas and costs. It was asked that a special case on the point of law should be granted, and to this assent was given. No doubt this practice is very largely followed, and an authoritative decision will go far to clear the ground of a number of those who constantly contravene the Act to the detriment of unsuspecting and uninformed persons.

Ptomaine Poisoning.

In this instance an action for damages, which constitutes an important precedent, was tried at the Birmingham County Court on the 24th inst. A bricklayer brought an action against a butcher to recover £15 15*s.* for injuries sustained through the negligence of the defendant. It was stated that on July 24th the wife of the plaintiff bought a piece of beef at the defendant's shop; it was requested that it should be pickled, which was done; and it was fetched away the next morning. Plaintiff and his family partook of it, and all were very ill afterwards. The brine in which the meat was alleged to have been placed was examined by a medical man, who pronounced it to be like suds and very filthy—it was said to have never contained any meat. Additional evidence was brought as to the nature of the illness suffered from, and the jury gave a verdict for £3 10*s.* In the interests of the poor investigations of this kind will have a salutary effect in checking imposition and fraud.

Orthopædic and Spinal Hospital.

The Marquis of Hertford presided at the annual meeting of this charity on Oct. 22nd, and drew a grave picture of the financial difficulties which beset the institution. Last year the excess of expenditure over income was £467; this year it has risen to £585, and it was stated that unless some prompt action is taken some of the wards will have to be closed. There were 1563 new cases and renewals during the year, a fact which points to a demand on the resources of the charity. With the large contributions given to the public charities of the town during the present year it would be a reflection on the cause of philanthropy if this useful work had to be in any degree curtailed.

Hospital Sunday.

The Hospital Sunday Fund Collection will be made on the 31st inst., when it is hoped that liberal contributions will be available for the deserving charities whose name is legion in our midst.

Sanitary Inspectors' Conference.

The North-Western and Midland Sanitary Inspectors' Association held a conference at the Council House on the 24th inst. Alderman Cook, chairman of the Health Committee, welcomed them. Various subjects were discussed and grievances ventilated and an amount of useful work got through, unity of action being counselled.

Oct. 26th.

BRISTOL MICROSCOPICAL SOCIETY.—At the fifty-fourth annual meeting of this society, which was held last week, Mr. C. King Rudge, M.R.C.S. Eng., was elected president for the session 1897-98.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Culvert v. Filtration.

THE question of sewage treatment is one of such importance to the country as well as to Manchester that perhaps no apology is needed for reverting to it again. A statement of the difficulties attending precipitation and artificial filtration has been given to the papers by Mr. McDougall, chairman of the Purifying Works Sub-Committee of the corporation, and may be considered official. He says that the process for the separation of the solid matters from the sewage at the Davyhulme works has accomplished all that was expected of it. Precipitation is successfully carried out and a clear effluent passes away from the tanks. This effluent it is proposed to take by underground culvert to the tidal waters of the Mersey. It is not offensive or putrescent, and will not become so if mixed with a sufficiently large body of water containing the free oxygen existing in large rivers or sea water, as oxidation takes place and the organic matter it contains becomes converted into harmless compounds. It is not so, however, when it flows "into the still pool of the Ship Canal between Barton and Irlam Locks," which contains sewage from the large districts above Manchester (and Mr. McDougall might have added from Manchester itself), which is already putrid. "All the free oxygen which would be available in ordinary rivers has been absorbed, and has not been sufficient to oxidise the sewage that has come into it on its way to the city." When, therefore, the effluent enters it decomposition of the organic matter it contains rapidly follows, and if possible the condition of the canal is made worse. The problem is to prevent the effluent becoming putrescent. This has been done at Davyhulme by "passing it through land." An area of twenty-six and a half acres under-drained and specially prepared has been in use from the time the works began operations, "and the filtered water is very excellent." But to deal with 26,000,000 gallons daily 1300 acres would be required, and the committee gave up that idea. Then artificial filters—tanks specially constructed and filled with cinders, coke, or burnt clay—were tried, "upon which the effluent is poured, remaining in contact with the filtering material for a stated period, then drawn off, and the filter remains under the action of the air for about double the length of time it had held the effluent." These experiments were successful as regards the effluent, but after lengthened working it was found that the capacity of the filters became constantly less. This fact and its consequence—the periodical refilling of the filters—had to be considered in forming any estimate of the cost of artificial filtration, which was put down at £275,000 capital outlay for fifty acres of filters, while the yearly interest and sinking fund, working expenses, and refilling every five years were estimated to cost £38,000, equal to a rate of over 3*d.* in the £. The capital outlay for the culvert is put down at £258,000, the interest and sinking fund, with yearly working expenses of £200, at £10 520, equal to a rate of less than 1*d.* in the £. The critics of the culvert scheme consider the estimates for artificial filtration extravagantly high and those for the culvert scheme as much too low. Oldham is now using the land purchased for land filtration for the construction of artificial filters. Salford is making preparations for artificial filtration, and Mr. McDougall naively asks, "How can the courts permit Manchester to stop at precipitation when other towns agree to do more?" The corporation is very anxious to get beyond the reach of the Joint Irwell and Mersey Committee, notwithstanding the fact that the chairman of the Rivers Committee is vice-chairman of the Joint Committee and that Sir Henry Roscoe is the adviser common to both. Surely the resources of chemical science are not exhausted with the use of lime and copperas, and Sir Henry Roscoe might venture to draw on them a little further. However the poll may result there is a widespread feeling that the culvert scheme is being rushed and that the Rivers Committee should not have issued almost at the last minute a circular stating that the culvert can be made for less than a penny rate, while artificial filtration will require more than a threepenny rate. Corporation estimates are apt to be exceeded. The Victoria Hotel, built by the Corporation, cost £120,000 when it was only to cost £35,000, and many who have gone into the matter consider that the culvert

with all the incidental expenses will require at least £400,000. Last year Sir Henry Roscoe reported that the Davyhulme filters could purify daily 800,000 gallons of sewage per acre, which means that twenty-seven acres of filters would serve instead of the fifty acres of the Rivers Committee. Moreover, filters now working are said to have been in use from twelve to twenty years without refilling, instead of requiring it every five years according to the committee's estimate. The cost of the filters is also said to be put at almost double a fair estimate. The truth is that a sixteen miles culvert to carry away the sewage of 500,000 or 600,000 people is a fine engineering idea jumped at by the Rivers Committee in their panic-stricken efforts to get beyond the jurisdiction of that terrible bogey, the Joint Committee.

Bad Meat in Manchester.

In any large community there will always be more or less waste of food at the hands of the consumers, but small perhaps when compared with what is wasted before reaching them. In a report to be presented to the Manchester City Council on Wednesday the following figures are given with respect to unsound meat, fish, &c., condemned and destroyed under the Public Health Act, 1875, during the year ending Aug. 28th last: meat, 194 316 lb.; fish, 177,287 lb.; shellfish, 74,344; venison, 592 lb.; hares, 39; grouse, 3; pheasants, 1000; rooks, 73; fowls, 516; ducks, 121; geese, 149; turkeys, 605; rabbits, 2700; and pigeons, 273. In addition to this large quantities of fruit and vegetables of all kinds have been destroyed, among which may be noted 1414 lb. of cranberries, 17 cwt. of cocoanuts, 39 crates of bananas, and 32 barrels of potatoes.

Vegetarian Jubilee Meeting.

The Vegetarian Society held its jubilee in Manchester yesterday week. Representatives were present from all parts of the country and papers were read at the morning meeting by the Rev. Professor Mayor and for Mr. Edmund Baillie on The Bible and Vegetarianism and A Guild of Good Life. During the year fifty-three members and eighteen associates were added to the society, but many old members have been taken away—Sir Isaac Pitman and Mr. Edward Hare, in their eighty-fifth year; Mr. James Parrott, of Manchester and Southport, in his ninety-fifth year; Mr. William Harrison, of Scarborough, at the age of ninety-two years, &c. The report does not name any deaths below the age of seventy-seven years, but we may scarcely assume that vegetarianism ensures life to that age. It appears that the Kayastha Vegetarian Society, India, the 5,000,000 members of which abstain from fish, flesh, fowl, and eggs, is now affiliated with the English society. Mrs. Besant presided at a large public meeting in the evening, and in the course of her speech based her appeal for the system on "the law of life, in other words, the law of love," rather than on the common arguments that it purified the body, so that we were enabled "to have a body that would form less of an obstacle to intellectual and moral growth." A deeper and more attractive reason to her was "that we ourselves were but parts of the one universal life." Many perplexing questions will arise when the multitude begins to put vegetarianism into practice on a large scale.

National Anti-Vaccination League

The annual conference of the National Anti-Vaccination League was held in Manchester last week. According to the reports given in the papers some members of our profession took part in the proceedings. Dr. E Haughton (London) is stated to have moved a resolution of no confidence in Mr. Carlile's Bill for providing calf lymph, and to have said that "there was no such thing as calf lymph." At the evening meeting Dr. C. Creighton (London) is reported to have moved a resolution in favour of supporting candidates pledged to oppose compulsory vaccination, which was seconded by Mr. Hadwen (Gloucester). This gentleman appears to have said that vaccination was "nothing but a superstition," and to have informed the meeting that "there was not a greater liar in history" than Dr. Jenner.

Oct. 26th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Professor Macewen and the Glasgow Western Infirmary.

THE fact that the recent re-arrangement of wards consequent upon some change in the staff of the infirmary had caused dissatisfaction in the minds of some of the officials was alluded to in this column last week. It is now public property that Professor Macewen has protested most strongly against the decision of the managers to diminish the number of beds under his care and that the managers have decided to disregard his protest. From obviously inspired statements which have appeared in the press it would seem that for some time there have been differences between Professor Macewen and the managers and that the recent re-arrangements have determined a state of acute conflict. Under the terms of their agreement with the university the managers of the infirmary are bound to provide "reasonable facilities" for the teaching of surgery by the university professor of that subject, and in discharge of their obligations in this respect the managers upon the appointment of Professor Macewen elected him to the staff of the infirmary and placed the wards in his charge. At the same time, they requested him to become responsible for a third ward "as a convenience to the managers," and it is the removal of this ward from his care that has mainly caused the present dispute. The managers at their meeting on the 26th inst. refused to reopen the question, and have issued a statement to this effect to the press. The next step, therefore, rests with Professor Macewen, and it will be awaited with interest. There is a further point at issue between the disputants, which though not immediately urgent will doubtless influence the result of the quarrel. When Professor Macewen was appointed on the staff of the infirmary his dissatisfaction with the existing operating theatre led to his refusal to make use of it. He accordingly has performed all his operations in the corridor from which his wards open, this being specially equipped for the purpose. At the same time he used his influence with the managers to secure the building of three new theatres, which are now rapidly approaching completion. He appears to have considered that one of these theatres was to be reserved for his sole use, and it has been stated that the cost of the erection of one of the theatres was contributed by a Glasgow citizen with this object at Professor Macewen's request. This statement, which has appeared both in the medical and lay press, the managers emphatically deny. They also intimate that whilst no final decision as to the allocation of the theatres has been arrived at, it is hardly reasonable, considering the fact that there are at least six surgeons on the staff, to suppose that they will be able to set aside one of the theatres for the exclusive use of any individual member of the staff. It is thus obvious that there may be serious trouble in the immediate future even should Professor Macewen submit to the decision of the managers to reduce the number of his beds. The unfortunate dispute has to some extent involved the university authorities, as indirectly, if not directly, they have concerned themselves to support Professor Macewen's demands. On the other hand, it must be remembered that the professor of clinical surgery is also a surgeon on the infirmary staff, and as he has taught clinical surgery for many years with only two wards at his disposal he can scarcely be expected to view with favour the contention that for the proper teaching of the subject three wards are required; further, the gentleman who, it is suggested, shall share the operating theatre with Professor Macewen, is also a member of the University Senatus, and no one can be surprised that Professor Macewen's objection has thus given rise to some personal feeling. Altogether the dispute is a very unfortunate one, and is exciting much comment in medical circles. The stage for private conference and mutual concessions seems to have been passed since the disputants have come into the public prints. But it may be hoped for the sake of the school of surgery in Glasgow that some arrangement may yet be arrived at, though the method of this it is at present difficult to perceive.—Two new appointments to the staff of the Glasgow Western Infirmary are intimated—viz., Mr. Ralph Stockman, M.D. Edin., to be visiting physician; Mr. J. Crawford Renton, M.D. Edin., to be visiting surgeon. Dr. Stockman is to have charge of the beds reserved for the "clinical teaching of materia medica and therapeutics."

New Infectious Diseases Hospital for Lanarkshire.

The new hospital for infectious diseases which has been built near Motherwell by the district committee of the middle ward of Lanarkshire was opened on Oct. 25 h. This hospital is the fifth which has been provided by the district committee to meet the needs of the middle ward of the county. The site extends to about six acres of elevated ground looking over the Clyde valley. There are beds for 100 adult patients, the ward accommodation being four

pavilions of twenty beds each, eight private wards of one bed each, one isolation pavilion of six beds, and one observation pavilion of six beds. The resident staff provided for consists of a medical officer, a matron, sixteen nurses, six maid servants, and a male attendant at the lodge. The main wards have their long direction north and south, thus securing exposure to the sun's rays during the whole day. Each pavilion is divided into two wards containing ten beds. The main wards are 60 feet long by 26 feet wide and 13 feet high, giving to each bed 12 feet of linear wall space, 156 square feet of floor space, and 2028 feet of cubic space. The floors are of pitch pine, wax polished, and the walls and ceilings are finished in Keene's cement. The sewage is purified before leaving the hospital grounds, two tanks and filters having been constructed for the purpose. The mortuary has a small room from which relatives can view the dead through a glazed opening. The cost of the hospital, including all fittings, apparatus, machinery, furniture, and fees, will be about £37,000, or £370 per bed.

Oct. 27th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Royal University of Ireland.

THE annual meeting for conferring degrees of the Royal University was held in the large hall of the institution on the 22nd inst. It was attended with more than usual interest, the Marquis of Dufferin, Chancellor of the University, presiding and the Senate being largely represented. Among the Senators were the Right Hon. Christopher Redington, Vice-Chancellor; the Earl of Kenmare, K.P.; the Earl of Rosse, K.P., LL.D., F.R.S.; and the Right Hon. Lord Morris. The President delivered a most interesting and graceful address, at the conclusion of which he complimented certain members of the University on whom honorary degrees were about to be conferred. The list included two medical men—Dr. Whitla, Professor of Materia Medica and Therapeutics in Queen's College, Belfast, who received the degree of M.A. *honoris causâ*, and Dr. Byers, Professor of Midwifery in the same institution, who obtained the degree of M.A.O. *honoris causâ*. At the same time the degree of D.Sc. *honoris causâ* was conferred upon Dr. Divers, formerly a scholar of Queen's College, Galway, and now Professor of Chemistry in the University of Japan, and upon Mr. W. E. Adeney, F.I.C., F.C.S., the Curator of the Museum of the University, in recognition of the scientific value of their work. Mr. Adeney's doctorate had special reference to his labours with regard to the bacterio-chemistry of sewage.

Funeral of the late Mr. O'Grady.

The funeral of the late Mr. E. Stamer O'Grady, M.A., M.B. Dub., F.R.C.S. Irel., which was strictly private, left Merrion-square on the morning of Oct. 22nd for Kingsbridge terminus, arriving at Limerick junction at 11.30 A.M. From the junction the remains were conveyed to the family burial ground, near Kilballyowen, the ancient seat of "The O'Grady" family.

Typhoid Fever at Ligoniel.

A serious outbreak of typhoid fever has occurred at Ligoniel, a village on the northern outskirts of Belfast. Since Oct. 6 h the dispensary medical officer has had visiting lines presented for 32 cases of typhoid fever, and 21 or 22 have come in since Oct. 18th. A special meeting of the board of guardians was held on Oct. 22nd to consider the matter. The general impression is that the sewerage of the district is defective, and that the water-supply is at fault. Indeed, Dr. Clibborn (Local Government Board inspector) stated at the meeting that "the sewerage—indeed, it could be hardly dignified with the name of a system—system was very bad." It was decided to issue handbills and posters in the district giving the inhabitants simple directions as to keeping the houses strictly clean, keeping articles of food and drink in proper condition, and boiling the milk and seeing that the vessels in which it was kept were scrupulously clean. It was also arranged to supply the inhabitants with disinfectants and to have a bacteriological examination of the water made. On Nov. 25th Ligoniel, according to the new Act, will become part of Belfast and the corporation will have to deal with the sewerage question.

Typhoid Fever in Belfast.

At present (Oct. 23rd) there are 17 cases of typhoid fever in the Royal Hospital and 142 in the Union Hospital. During the four weeks ended Oct. 20th 354 cases of typhoid fever (a decrease of 25 on the returns of the previous four weeks) were reported. The epidemic is most prevalent in the Shankhill and Ballymacarrett districts, but there are cases all over the city. The mortality is not high so far,

Ballymena Water supply.

The inhabitants of Ballymena are entitled to have 200 000 gallons of water per day from the Quoile reservoir, but through incrustation of the pipes they now actually only receive 172 000 gallons. As a result the supply is an intermittent one, and they propose to construct a line of 8-in. instead of 5 in. pipes between the River Quoile and the filter-beds, a distance of two and three-quarter miles. For this work £2600 is required, and it is proposed to borrow £3000 from the Local Government Board.

The Cork Medical and Surgical Association.

The annual dinner of the Cork Medical and Surgical Association was held last Saturday night. There were about fifty present, including members and guests. The chair was occupied by Mr. Philip Lee, President of the Association, and Dr. Edward Magner, Vice-President, was in the vice-chair. There were numerous toasts and songs, and a most enjoyable evening was spent. These re-unions tend to bind the members of the profession together, and to establish an *esprit de corps*, especially valuable whilst the club question is before the public.

Outbreak of Diphtheria at Monkstown, County Cork.

There were several cases of diphtheria recently in the neighbourhood of Monkstown, a seaside resort near Cork. The sanitary authorities have gone to work with energy and no new cases have been reported during the past few days. It is suspected that defective sewers may have been the originating cause, and the engineer to the board of guardians has been instructed to make a thorough investigation and to at once adopt any measures he may find requisite.

Oct. 25th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Medical Practice and Pharmacy in France.

THE law which at present governs the practice of medicine in France forbids the simultaneous practice of medicine and pharmacy even by a person who may be in possession of diplomas in both subjects. As this law expressly prohibits any mutual arrangement between a medical man and a pharmaceutical chemist, as well as any partnership between them for the carrying on of a dispensary or the sale of medicine, it is evident that this prohibition is applicable most of all to the case where the mutual understanding is inevitable—that is, to the case where the medical man and the druggist are one and the same person. Unfortunately the statute does not specify any penalty for infringement, but merely declares that arrangements of the kind already described are of no effect in a legal sense. The consequence is that the criminal courts cannot pass sentence on persons brought before them for practising both medicine and pharmacy, and the culprits have to be discharged although their guilt is manifest, so that the practice in question is to all intents and purposes authorised. This state of things might answer in places where there is no pharmaceutical chemist but would be unsatisfactory in towns, for the medical man is reduced to the position of a dealer in drugs and there is no proper supervision over the dispensing of prescriptions, as the responsible head of the establishment would not be in attendance; moreover, the prescriptions are no longer checked by a druggist who is able in the interests of the patients to correct any error which may have been accidentally made. The medical syndicate of Roubaix has accordingly just presented a petition to the Senate and the Chamber of Deputies praying for an amendment of the law passed three years ago to regulate the practice of medicine and pharmacy in France. This petition sets forth the arguments which I have just been enumerated, and mentions that the courts were formerly able to enforce the law by passing sentences of six months' imprisonment in such cases.

The Trial of a Medical Man.

The sentence upon Dr. Laporte has just been pronounced. Your readers will doubtless remember the course of events which led up to the trial, but to give a short *résumé* they were as follows. Dr. Laporte was called in the middle of

the night to a woman in labour. He had to perform craniotomy, and not possessing the proper instruments had to make shift with those at hand, among which was a long needle of the kind used by mattress-makers. The woman died two days later, and the experts who made the post-mortem examination gave evidence that they found two perforations in the bladder caused by the needle. The immediate arrest of Dr. Laporte, his imprisonment for three weeks despite all the protests which the medical men of Paris made to the judge, brought about a strong feeling of resentment at the action of the authorities, not only among the medical men of Paris, but also among the general public. The evidence given at the trial was of the most sensational character. That for the prosecution was given by the husband of the victim and two neighbours who were in the room, but whom Dr. Laporte asked to retire at the time of his performing the operation. These, however, said that they left the door ajar, and so could see everything that went on; they testified that Dr. Laporte used the forceps in an altogether wrong manner, and that, in addition, his instruments were defective! It was shown that the husband had left his wife in labour all day long, that all her previous confinements had been difficult and had necessitated the use of instruments, and that he had only waited until night fell so as to be able to send for a medical man belonging to the *service de nuit* because he could get him for nothing. For the defence sundry expert witnesses said that Dr. Laporte was perfectly justified in performing craniotomy and in using such instruments as were at hand. All the trial turned upon the question whether Dr. Laporte in introducing the needle into the vagina had guided it with his finger so as to avoid wounding the neighbouring organs, or whether he had pushed it in haphazard, as the two gossips who were outside the door said he did. In vain did Professor Pinard, the head accoucheur at the Maternity Hospital, give it as his opinion that Dr. Laporte must have guided the needle otherwise he would have perforated the rectum; in vain did he say that the perforations found in the bladder were probably not produced by the needle, but were spontaneous, finally declaring on oath that Dr. Laporte had acted in every way as a thoroughly expert accoucheur, for after having applied the forceps four times the vagina and neighbouring organs exhibited no trace of injury. Despite this important declaration, and despite the affirmation of Dr. Laporte that he had guided the needle with his finger, the court adopted exclusively the view of the two witnesses outside the door and sentenced Dr. Laporte to three months' imprisonment. It took into consideration, however, his former blameless conduct and the humanity he had shown in doing his utmost to save the woman without hesitating on account of the risks he knew he must have been running. The judge gave the accused the benefit of the law of *sursis*, which in France allows sentence to be deferred in the case of a first offender of good antecedents for the space of five years, and at the end of that time the remission of the penalty completely if no new crime has been alleged against the accused during that time. Dr. Laporte has appealed against this judgment, which has aroused a great deal of public feeling. Every medical society of Paris has issued a strongly worded protest, and a subscription has been got up amongst medical men for the purpose of offering Dr. Laporte such a sum as will enable him to buy any instrument he may lack and to better his circumstances all round. Dr. Laporte, however, has absolutely refused to receive any such thing.

A Modern Werewolf.

The authorities have recently arrested in the provinces a man named Vacher, for whom they had been looking for some time, and who has made a sinister reputation for himself under the name of the "shepherd slaughterer." He is acknowledged to be the author of nineteen murders, accompanied for the most part by violation, and every day new crimes, of which the authors have up to now been unknown, are attributed to him, all of which he acknowledges with a kind of pride, saying that he did them under the impulse of a command from Heaven and while he was in a kind of trance. All his victims were lonely wayfarers, young men, young girls, children, and old women. He often used to open the bellies of his victims in order to glut his lust for blood among the abdominal viscera. Vacher had formerly injured his head in various ways, one of which has not yet been extracted. He was for two years in an asylum, but was discharged by the medical superintendent as cured. He was also for some time under vows in a religious house. At the present moment the question of his responsibility is being hotly debated by lawyers and authorities on forensic medicine. It is, however, obvious that Vacher himself supplies the proofs, for the very exaggeration of his monstrous actions would lead one to suppose that he was of unsound mind, and it may well be asked whether the very complacency with which he takes upon himself every unpunished crime is not simply due to braggadocio and a desire to pose as something more than an ordinary murderer.

Oct. 27th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The International Conference on Leprosy.[1]

THE next subject of discussion was the Etiology of Leprosy. Professor Neisser, of Breslau, stated that the bacillus found in leprosy was regarded by the majority of medical men as the cause of the disease, but the attempts that have been made to obtain cultures of the bacilli and to communicate leprosy to animals by inoculation have failed. The bacilli are present in every case of leprosy; in two cases observed by Professor Kaposi they could not be discovered at first, but they appeared before the patient's death. Climate, personal or national habits, food, &c., were only of secondary importance in the production of the disease. The tubercular and anæsthetic forms of leprosy were caused by bacilli of varying degrees of virulence.—Dr. Sticker was of opinion that the primary affection in leprosy consisted in a specific ulceration of the mucous membrane of the nose. This ulceration may be present several years before the first tumours appear. He has discovered the bacilli of leprosy in the secretion of the nose in 128 out of 153 cases. From the primary ulceration in the nose the bacilli make their way by means of the lymphatic vessels into other parts of the body. Infection was due, as a rule, to a direct transference of bacilli from the noses of lepers into those of healthy persons; indirect infection by handkerchiefs, &c., was exceptional.—Dr. Arning, of Hamburg, stated that he had seen primary affections in other parts of the body, as, for instance, on the arm.—Dr. Schaeffer, of Breslau, expressed the opinion that the bacilli were disseminated by patients in the acts of respiration, expectoration, and sneezing, and that disinfection of the mucous membrane of the nose, the pharynx, and the respiratory organs would have the effect of diminishing the number of bacilli spread abroad in this way. These considerations seemed to be of some importance with reference to prophylactic measures.—Dr. Geill, of the Dutch Indies, stated that in 50 per cent. of his cases the first symptom appeared on the feet; he mentioned that the natives who came under his observation were in the habit of walking barefoot, and he also said that in several cases the primary symptom took the form of a pemphigus blister. In almost every case a lesion of the skin of the sole of the foot was found. The virus of leprosy, therefore, seemed to be present on the soil and to enter the organism through these lesions of the foot.—Dr. Peterson gave some statistical details, in the course of which he mentioned that of 1200 cases 783 assumed the tubercular and 315 the macular form of leprosy, whilst 94 were of a mixed character. Men seemed to contract the disease more easily than women. The majority of patients were between twenty and forty years of age, but some were attacked at the ages of sixty and seventy years; there were only thirteen patients aged from two to five years.—At the next meeting Heredity in Relation to Leprosy was discussed; it was obvious that this hypothesis was now abandoned by almost all competent authorities.—On the subject of Treatment Dr. Carrasquilla and Dr. Olaja Lawerda, who had come from South America, explained the results obtained by injections of horse serum. It was generally agreed that amelioration of the symptoms had followed the application of this method, but that an actual cure had not yet been obtained.—The discussion of the necessity of isolation has already been reported in my last letter.—At the final meeting the results arrived at by the

[1] Continued from p. 1084.

conference were read by the secretaries in German, French, and English. These conclusions were as follows: (1) the bacillus lepræ is the cause of the disease; (2) its life-history and the mode by which it obtains entrance into the body are not yet fully known, but it is very probable that it makes its way through the mucous membrane of the mouth and nose; (3) leprosy is an infectious disease, but not an hereditary one, and there is an increased risk of infection among populations living under unfavourable conditions; and (4) attempts to cure leprosy have not been successful, and the isolation of lepers is necessary, especially when the disease has become prevalent.—Dr. Hansen finally moved the following resolutions, which were unanimously agreed to: (1) in every country where the disease appears to have spread over a considerable area isolation is the best way of preventing an epidemic; (2) a system of compulsory notification and control over isolation as practised in Norway is recommended for adoption by all nations in which there is a sufficient number of medical men; and (3) the authorities of the respective countries in framing regulations with respect to isolation should be guided by the social conditions of each country.

The members of the conference were received on Oct. 14th by the Emperor at the Neue Palais in Potsdam, the journey being made in special trains. A reception was also given by the Chancellor, Prince Hohenlohe, who was present at one of the meetings of the conference.

The late Professor Heidenhain.

Dr. Rudolf Heidenhain, Professor of Physiology in Breslau, who died in that city on Oct. 19th, was one of the most eminent physiologists of Germany. He was born in 1834 and after having completed his curriculum he devoted himself very early to physiological study. His first investigations on the physiology of muscles and nerves brought him so much reputation that he became ordinary professor in Breslau as early as 1858, being then only twenty-four years of age, a fact unprecedented in the annals of German universities. During his long occupation of the chair of physiology in Breslau he greatly improved both the study and the teaching of physiology there, and in conjunction with his pupils published a large number of very important memoirs. His principal works related to the secretion of the glands, pancreas, lacrymal glands, gastric and intestinal glands, the secretion of the kidney, the formation of lymph, the mode of intestinal absorption, and many other questions which would take too long to enumerate. Professor Heidenhain was a fervent advocate of vivisection and one of its most energetic defenders. In his pamphlet "Die Vivisection im Dienste der Heilkunde" he demonstrated the necessity of vivisection as a method of scientific research from which practical medicine has derived enormous benefits. This essay undoubtedly had a large share in maintaining the freedom of scientific research in Germany.

Oct. 24th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Suspected Poisoning of Three Hundred and Fifty Emigrants.

ON the 18th inst. Genoa was witness of a sad spectacle, fortunately culminating in no such tragic result as at one time seemed imminent. The *Agordat*, an emigrant ship of the "Navigazione Generale Italo-Brasiliana," was to have weighed anchor that afternoon for Rio de Janeiro and Santos, having on board 1400 men, women, and children, mostly of the very poor, in quest of the livelihood vainly sought in the Old World and fondly anticipated in the New. About 600 of the expected number, Southern Italians mainly, had been embarked since the night before, and at 11.30 A.M. of the 18th were served with their forenoon rations, consisting of "pasta al brodo" (a thin consommé with little segments of macaroni floating in it), a few drachms of "carne" (meat), a piece of bread, and a little wine. The scanty meal over, the majority of those who had partaken of it began to feel ill. Presently the symptoms assumed the well-known character of irritant poisoning—tenesmus, with severe pains and vomiting. The chief sufferers were the women and children, whose contortions and cries produced a panic, which soon included the men, themselves, too, labouring under the same symptoms. The scene was a harrowing one and speedily drew on board the harbour authorities with all the medical men within immediate hail. Alimentary poisoning on an extensive scale was at once suspected, and with the least possible delay every cab, tram-car, and vehicle available was utilised for the transport of the sufferers to the Spedale di Pammatone. An interminable file of conveyances, each accommodating a group of pale, panic-stricken, agonised "avvelenati" (poisoned subjects), passed through the main arteries of the city, filling the rapidly increasing crowd of bystanders with compassion and dismay till the hospital was reached. By this time the whole clinical staff of the Pammatone, reinforced by practitioners from every quarter, by all the medical students of the Genoa school, and the collective nursing and transport service attached to the hospital, was in attendance, and not a moment was lost in treating each relay of sufferers case by case as they arrived, the stomach pump, and, failing that, emetics, being steadily put in practice, and all the more aggravated cases (mostly children) provided for in the wards, medical and surgical. Late in the afternoon it was ascertained that no fatality had occurred, and that most of the patients, 350 in all, were doing well. Meanwhile, the Prefect, Signor Garroni, accompanied by the provincial medical referee, Dr. Elia, and other authorities, having seen for themselves the symptoms under which the sufferers were labouring at the Pammatone, proceeded on board the *Agordat* and at once instituted inquiries, from which it was surmised that the poisoning was attributable to the excess of lead used in soldering the metal platters placed before the emigrants. Specimens of these were sent for analytical inspection to the Ufficio d'Igiene; all the utensils on board were impounded and replaced by others, and rigorous disinfection was practised throughout every part of the ship. The ship itself was anchored in mid-harbour and none of the crew or anyone found on board was allowed to leave it till the cause of the "avvelenamento" had been put beyond doubt. That result, however, does not seem to have been attained. Dr. Palladino, Director of the Pharmaceutical Department of the "Spedali Civili," to whom the analyses were entrusted, reports that after every test on his own part and that of his assistants had been applied the hypothesis of metallic poisoning by lead, verdigris, or any such irritant could not be established, nor in the food and drink consumed could any ingredients be detected to explain the violence and widespread incidences of the intestinal symptoms. For the present the "misadventure," distressing and well-nigh tragic in its consequences, remains a mystery, but public indignation is so intense that it is not likely that the last has been heard of it or that fresh investigations will not be started. The whole subject of "emigration," "emigrants," and "emigrant ships" will come before Parliament, and the inevitable committee appointed to report on it will have details to reveal about as harrowing as any brought to light in a kingdom rich in abuses of every kind. It is already known that about 150,000 emigrants leave Italy every year for the Brazils, driven from rural hamlet or manufacturing town by hardness of living, and tempted by the prospect of high wages or speedy profits enabling them to return with capital enough to begin life anew. From 100 to 120 lire (£4 to £4 15*s.*) a head are paid by these poor adventurers as passage-money, and the equivalent they get for it in "maintenance" and "comfort" *en voyage* may be inferred from the fact that after providing for these conditions the emigration companies earn enough to make the traffic an eminently paying one. Such a code of regulations as control British emigration does not exist in Italy—indeed, a North Italian contemporary, commenting on the whole subject, avers that whatever shadow of legislation has been passed in protection of the emigrant is practically a dead letter. How fortunate, adds the writer, that the "misadventure" occurred in the port of Genoa within reach of well-appointed hospitals and not on the high seas. In the latter case we should have had none but "official" accounts of it—the reports of the sufferers (most of them "analfabeti" or unlettered) coming home months after date and mainly by hearsay. Italy annually loses, principally from the Venetian communes and the island of Sardinia, thousands of her most capable peasantry to struggle and sink on South American soil, and little or nothing is done to make home life easier for them or lessen the inducement to encounter such a fate. Surely this is a state of things that legislation should lose not a day in reforming. "The nineteenth century omelette," says an eminent sociologist, "demands a great smashing of eggs." True; but Italy seems to smash far more eggs than her sister Powers—certainly more than her "State omelette" can in any way justify.

Oct. 24th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Chronic Nephritis.

ACCORDING to Dr. Chvostek chronic arthritis does not depend on the presence of micro-organisms in either the joints or the blood. The finding of bacteria in the joints, either after death or when death is impending, proves nothing, and the hypothesis that a specific micro-organism is the cause of arthritis is untenable. The symptoms of the disease are not constant, the only characteristic feature being a swelling of short duration affecting a joint—a condition which may be induced by toxins altogether apart from living bacteria. On the other hand, Dr. Singer, who has examined the blood, the urine, and the articular exudations in ninety-two cases, states that both staphylococci and streptococci are to be found. In three instances post-mortem examination showed the same bacteria as in the living subject; in one case the synovial membrane contained bacteria, but the exudation was free from them; in a third case there were hæmorrhages with numerous streptococci in the peri-articular tissue. These facts explain why in a great many cases the articular exudations are free from bacteria. The inflammation of the synovial membrane is symptomatic, the infiltrations which contain the bacteria being frequently in the peri-articular tissue. Dr. Singer considers that the erythema multiforme which frequently accompanies arthritis is a typical pyæmic affection of the skin; he is opposed to the view that salicylic preparations have a specific action, and he has seen very favourable results produced by intravenous injections of a mercurial salt.

The Murphy Button.

In an article published in the *Medicinische Wochenschrift* Dr. Marwedel has given an account of the results obtained with the Murphy button in fifty-five operations. In thirty-five cases an anastomosis was made between the stomach and the intestine and in three cases between the gall-bladder and the intestine; in twenty-nine cases there was carcinomatous stenosis. Twenty-three of the thirty-five cases of gastro-enterostomy showed an improvement; two of the cases of cholecystenterostomy showed an improvement, and the remaining one died. The button was usually passed after the lapse of two weeks. According to statistics published by Dr. Brentano cicatricial stenosis resulted in only three among 328 button operations.

Compulsory Insurance and Medical Aid Societies.

At the last meeting of the Medical Chambers Dr. Janovsky, of Prague, called attention to the compulsory insurance of workmen—a subject of which I have already given an account in THE LANCET.[1] On the ground of the disastrous effects which this system of insurance produces on the incomes of medical practitioners Dr. Janovsky proposed a resolution the substance of which was that all the Medical Chambers should be invited to declare that the holding of a permanent appointment in connexion with this work constitutes an ethical misdemeanour, and that such practitioners will consequently be brought before the council of honour. The resolution was unanimously adopted, and the meeting also made arrangements for presenting a petition to Parliament praying for the repeal of the compulsory laws. The following gentlemen were then elected on the committee: Dr. Adler, Dr. Klotzberg, Dr. Kohn, Dr. Lerch, Dr. Mucha, and Dr. Witlacil.

Cyclic Albuminuria.

Dr. Ostwalt has published in the *Klinische Rundschau* a highly interesting paper on the pathology of cyclic albuminuria, a subject our knowledge of which is very imperfect, amounting to little more than the recognition of the fact that the upright position of the body causes albumin to make its appearance in the urine, but that it is absent from the urine at night. In two cases of this condition observed by Dr. Ostwalt the patients suffered from intra-ocular hæmorrhages, sometimes before the appearance of the albumin in the urine and sometimes during the cyclic albuminuria. The urine, which was previously normal, then contained 2·75 grammes of albumin per litre, and there was also oxaluria. Perverted metabolism has the effect of rendering the walls of the vessels unfit for the complete performance of their functions, and albumin consequently makes its way into the urine when the renal vessels are under unfavourable hydrostatic conditions—that is, when the body is in the upright posture.

Oct. 24th.

[1] THE LANCET, June 13th, 1896, p. 1681; and Feb. 20th, 1897, p. 558.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of the Insane in Russia.

IN the last number of the Russian journal, *Arkhiv Psikhiatrii*, appears an interesting article by Dr. Yakovenko, throwing much light upon the present state of Russian lunatic asylums, and comparing the provision now made by the *zemstvos* for dealing with lunatics with the State of affairs before the days of *zemstvos*. Like so many other modern institutions and methods in Russia the present system dates from that great epoch of reforms which included the emancipation of the serfs in 1861 and the introduction of the system of local self-government by *zemstvos* in 1863. Before that period the care of the insane in Russia was in the hands of a governmental body known as the *Prikaz*, or Ministry of Social Supervision (*Prikaz obshtchestvennago prizriénia*). When the functions of this body passed over to the *zemstvos* there was asylum accommodation in Russia for 1167 patients; now this number has grown to 9050. Formerly the annual sum expended on each patient was 90 roubles (about £9), now it is 215 roubles (over £21). Consequently the total annual cost of the asylum population of Russia is at the present time not far short of 2,000,000 roubles, instead of only a little over 100 000 as formerly. Great improvements have also been introduced in the methods of treating the insane. Forty years ago there was still a tendency to regard lunatics almost in the light of criminals and to treat them as prisoners rather than as the unfortunate victims of disease. All this has now been altered. The chains and ropes, cages and bars, handcuffs and strait-waistcoats which were formerly found in every asylum in constant use are now things of the past and physical restraint is resorted to only in rare cases where it is absolutely necessary. In brief, the treatment of the insane in Russia is now conducted on the same principles of science, common-sense, and humanity as in other countries. But, writes Dr. Yakovenko, there is still a good deal to be done before the asylum accommodation in Russia can be regarded as adequate. He calculates that the number of insane persons in the "governments" under *zemstvo* rule is somewhere between 127,000 and 191,000. Consequently, at the present time only some 7 per cent. of the total number are now treated in asylums. Comparing Russia in this respect with other countries, he finds that in France the proportion of insane under control in asylums to the total number of insane is 40 per cent.; in Switzerland, 58 per cent.; in America, 66 per cent.; and in Scotland it is as high as 83 per cent. The immediate aim of the *zemstvos*, the article concludes, should be at least to provide accommodation for such cases as absolutely require asylum treatment, and as these may be reckoned at about 20 per cent. of the whole it follows that the present number of available beds should be at least tripled.

King Menelik as a Scientific Observer.

A member of Colonel Leontief's second expedition to Abyssinia, Dr. Theodorof, writes to last week's *Vratch* an interesting note on the use of kousso in Abyssinia as an anthelmintic, and in the course of his letter he throws light upon quite a new side of the many-sided character of King Menelik. Kousso, or *Halgenia Abyssinica*, is, it seems, not only a native product of the country but is in vast demand among the inhabitants on account of its power of expelling intestinal parasites. The first description of the plant was published by the great English traveller, Bruce, who explored the region of the sources of the Nile late in the last century. But it was only in the middle of the present century that it came into general use as an anthelmintic. As such it is a valuable drug, but its action is accompanied by unpleasant symptoms, such as nausea, vomiting, colic, and diarrhœa. The Abyssinians, however, employ it constantly, for, according to Dr. Theodorof, every person in the country is at some time or other the subject of *Tæniæ*. Possibly the male-fern does not grow in this country or its vermifuge properties are

unknown to the inhabitants; at any rate, kousso is the invariable remedy to which they resort to expel the worm. They take it in the morning, fasting, and in the form of pellets, rubbed up with other herbs. Recently, it appears, the subject engaged the attention of King Menelik, who was struck by the unpleasant complications of the action of the drug already mentioned, and he is said to have argued in the following way. The vermifuge action of kousso resides in the flowers of the plant, and probably the active principle is in the juices of the flower; consequently this active principle probably is absorbed by bees when they suck the juices, and therefore it was possible that it might still be found in the honey secreted by such bees. From theory to experiment was a short step with the king. He summoned his henchman, Takle-Georgis, and commanded him to plant a grove of kousso trees and to establish an apiary hard by, to wait until the kousso had finally ceased to blossom, and then to collect the last honey from the neighbouring hives. This was done, and as the king further argued that the active principle would probably be in more concentrated form in the honey than in the whole flower, he ordered that only a teaspoonful of the honey should be given to the selected patient in a tumbler of water. The experiment is said to have succeeded to perfection. The dose acted as a thorough vermifuge, and there were none of the unpleasant complications associated with the action of the kousso flower. The account of this interesting experiment was taken down by the writer of the letter direct from the lips of Takle-Georgis, and he adds that this method of taking kousso is now general in Abyssinia, at least among those near the king. If the story be true, and there seems no reason to doubt it, it not only shows that King Menelik is possessed of real scientific acumen, but seems to point to a new field of experimentation in practical pharmacology.

Russian Medical Conferences.

It is announced that some time next year a Russian conference of physicians will be held in St. Petersburg to deal with the subject of leprosy in Russia.

The first steps towards preparing for the Balneological Conference, already announced as to be held in Russia next year, have been taken. A preliminary commission has been formed, and at its head is Professor Pasternatzki, the President of the balneological section of the Russian National Health Society.

St. Petersburg, Oct. 11th (23rd).

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Medico-legal Cases.

SEVERAL cases of medico-legal interest have been before the courts lately. The first is what is known as the "Eaglehawk murder," a case that has been going on for some time, the jury at the first trial disagreeing. Briefly the case was as follows. On Feb. 11th the wife of Charles John Hall, of Eaglehawk (Victoria), was found dead in a tub of water by her husband. Dr. Thorn was called and made, as it proved, a somewhat cursory examination of the body. An inquest was held by a police magistrate, no necropsy was made, and Dr. Thorn gave evidence that in his opinion Mrs. Hall had fainted and fallen into the tub, and being advanced in pregnancy was unable to extricate herself and was drowned. The jury returned a verdict of "Accidental death from drowning" and the body was buried. Subsequently, suspicious circumstances coming to the knowledge of the police, Hall was arrested and the body exhumed. Dr. Neild, lecturer on forensic medicine at Melbourne University, made a post-mortem examination of the body and declared that death was not due to drowning, but to suffocation, his chief reason for this opinion being the absence of water from the lungs and pleural cavities. There were also bruises on the body, and the teeth had been displaced and the nose fractured by violence applied before death. Evidence was given that Hall was improperly intimate with a barmaid named Eva Scott and on bad terms with his wife. At the trial in the criminal court the jury disagreed. At the second trial the medical evidence was the same, except that the Crown called additional experts, one of whom, Dr. Mallison, said from the description given by Dr. Neild he was not prepared to say that the signs were inconsistent with drowning. The woman Eva Scott said that she had written to Mrs. Hall informing her that Hall was the father of Scott's child, and had done so to induce Mrs. Hall to leave her husband and get a divorce. Hall had asked Scott to get poison for his wife, and had also said that if he put her head in a tub of water no one would have any suspicion. A wax model of the body of Mrs. Hall, in the position in which it was found, was made and brought into court and placed in the tub. Rigor mortis had set in when the body was found, and it was significant that one leg and thigh were extended, and the position was incompatible with the theory that she had fainted and fallen into the tub. The jury found Hall guilty of murder, and the conviction has been upheld by the executive.—Another case of more special interest to the profession is that of Searle *v.* Gurdon, just concluded in the County Court, Melbourne, before Judge Chomley and a jury. The plaintiff and his wife claimed £500 damages on the ground of alleged unskilful, improper, and negligent treatment of Mrs. Searle by E. J. Gurdon, of Brighton, medical practitioner. The defendant counterclaimed £63 10*s.* 6*d* for medical attendance on Mrs. Searle. The evidence has not been published, but it would appear that Searle asked Dr. Gurdon to see his wife. He did so, and found that she had some endometritis and trouble in the Fallopian tubes. He advised a consultation with a specialist with a view to operation. Dr. Balls Headley was called in and performed abdominal section. It was agreed that the fee was to be 100 guineas and that Dr. Gurdon was to attend her after the operation. She recovered and went for a trip to a neighbouring colony. She continued to consult Dr. Gurdon, who said that if she was not perfectly well it might be necessary to curette, and if so he would do it without charging any special fee. She continued to improve, however, and in his opinion curetting was not necessary. The Searles then removed to another district and called in the local practitioner, Dr. R. E. Weigall. Shortly after Searle called on Dr. Gurdon and demanded that he should curette his wife free of charge. Dr. Gurdon refused, as he said he did not think it necessary, and also demanded payment of his fees. Searle then said that he did not intend to pay, that he would get Dr. Weigall to operate, and that Dr. Gurdon would have to pay the expenses incurred. Dr. Weigall operated and Searle then sued Dr. Gurdon. The jury found for the plaintiff, awarding one farthing damages and also for the defendant (Searle) on the counter claim. The judge said he took the verdict to mean that the plaintiff had no meritorious claim and that the action should not have been brought, and that the counter claim was merely a consequence of the claim. He accordingly refused to allow costs on either case. The jury added a rider that the first operation was properly performed and that professional etiquette was detrimental to the interests of patients.

Cancer Curers Committed for Manslaughter Again.

Not long ago reference was made to the trial of so-called "Professor" Davis and Dr. Spark for manslaughter in the case of a Mrs. Steele, where Davis and Spark, who are in partnership, had applied a plaster, alleged to contain arsenic, to a cancer of the breast, the case ending fatally. At an inquest concluded on Aug. 27th on the body of a Mrs. Beames the same pair were again committed for manslaughter. In this case the patient had a cancer of the tongue, and a plaster containing black sulphur and 4·6 per cent. of crystalline arsenious acid had been applied. Post mortem, no evidence of arsenical poisoning was found, the cause of death being septic pneumonia. The legal advisers of Davis and Spark maintained that the application of arsenic to cancer of the tongue was a perfectly proper proceeding, and in support of this view referred to an excerpt in the *British Medical Journal* of July 3rd of a paper by Cerny and Trunecek (*Semaine Médicale*), in which this treatment was advocated.

Sept. 14th.

DR A. M. BERGER has found in the Vatican Library (Cod. Vat., 3211) a collection of prescriptions and directions for treating various eye diseases in Michael Angelo's own handwriting, obtained probably from medical friends mainly for his own personal benefit, as it is known that the great sculptor was nearly blind before he died. Dr. Berger has published this in its original Italian with a few notes in German. It appears not to have been previously published, though it is mentioned by Pierre de Nolhac as forming an addition to Michael Angelo's manuscript poems.

Obituary.

SURGEON-GENERAL WILLIAM ROBERT CORNISH, C.I.E., F.R.C.S. ENG.

BY the death of Surgeon-General William Robert Cornish, which occurred on Oct. 19th at his residence, Corvill, Shelley-road, Worthing, one for long a prominent figure in Indian medical politics has disappeared from the scene. He was born at Corvill, Butleigh, Somersetshire, in 1828, and entered as a student at St. George's Hospital in 1850, where he distinguished himself by gaining several prizes and the William Brown Scholarship. After leaving the hospital he acted for some time as house surgeon at the Royal Sea Bathing Infirmary, Margate. He was successful in obtaining an appointment which the Court of Directors of the East India Company offered to the hospital, and proceeded to Madras in 1854 in the *Roxburgh Castle* in charge of troops. He married the youngest daughter of the late Dr. George Yeates Hunter, of Margate, by whom he had one son, the late Captain William Hunter Cornish, assistant secretary to the Government of India, who died at Simla. The loss of this son, who greatly distinguished himself and promised to have a brilliant career, no doubt greatly affected his health.

In 1858 Surgeon-General Cornish was nominated secretary to the Medical Department in Madras, and was confirmed in the appointment in 1860. Ten years later he vacated this office to become Sanitary Commissioner, and in 1871 he was directed by the Government to draw up the census report of the Madras Presidency for that year. In 1880 he was appointed surgeon-general and retired five years later, when he became honorary physician to the Queen. As the head of his department he gained the respect and affection of all ranks, both European and native. In 1877 an immense amount of labour and responsibility devolved upon him in connexion with the famine of that year. Sir Richard Temple was sent by the Government of India as Famine Delegate and advocated a ration which Surgeon-General Cornish from his professional knowledge considered inadequate for the starving natives. He contended that the Government ration doled out was insufficient to properly support life and that thereby lives were unnecessarily sacrificed. A long discussion took place between Sir Richard Temple and Surgeon-General Cornish, the latter being heartily supported by THE LANCET and the press generally. Eventually the authorities had to give way, the diet recommended by Surgeon-General Cornish was adopted, and the slow starvation ration put a stop to. Thus suffering was mitigated and further loss of life was checked. During this trying time Surgeon-General Cornish received the cordial support of the Government of Madras, represented by the Duke of Buckingham. For all this meritorious work, which resulted in saving countless lives, Surgeon-General Cornish was only rewarded with a Companionship of the Order of the Indian Empire. He was a member of the Legislative Council in Madras, showing how highly he was esteemed by his own Government. Since his retirement he busied himself as a governor of his old hospital, St. George's, and in many other useful directions, taking also an active part in the management of the Institute of Preventive Medicine. He was originally honorary secretary and treasurer of the College of State Medicine, and when that body was amalgamated with the British Institute of Preventive Medicine he was one of the members of its council selected to join the council of the Institute. He was a regular attendant at the council meetings and took much interest in the work, and his advice was much sought after and valued in all matters relating to the hygiene of the tropics.

THOMAS BELL FLETCHER, M.D. PARIS, F.R.C.P. LOND.

BY the death of Dr. Bell Fletcher which occurred upon Oct. 21st at Leamington, almost the oldest practitioner in these islands, has passed from our midst. Dr. Fletcher was born in Shifnal in 1806, and graduated at the University of Paris. On his return from that city he resided for some time in London, but early in the thirties he removed to Birmingham where, in 1838, he was appointed physician to the General Dispensary, which post he held for ten years, resigning in 1848 on being elected physician to the General Hospital, and this latter post he held for thirty years, when he resigned and was elected honorary consulting physician, was presented with a piece of plate and, in addition, with his portrait painted by Sir Daniel Macnee. Among other appointments he held were those of consulting physician to the South Salop Infirmary, the West Bromwich Hospital, and the Midland Counties Hospital for Women. He was also a justice of the peace for the borough of Birmingham. He was physician to the Blue-coat School and the Blind Asylum, while the foundation of the Midland Counties Asylum for Idiots at Knowle was due entirely to his efforts and those of his friend, Mr. J. H. Kimbell. In his early days he took great interest in medical education and was instrumental in founding two fully licensed schools of medicine. The first one came to an untimely end owing to the resignation of two colleagues who filled practical chairs, but the second, under the name of Sydenham College, ran a successful course for some seventeen years.

At this institution Dr. Fletcher was both principal and lecturer on Medicine, but when the scheme for its amalgamation with Queen's College was put forward he resigned both offices, being much opposed to the new idea. Eventually, however, he reconsidered his position, and accepted a seat on the council of the united colleges. In 1887 he retired altogether from practice and lived for some months in the South of France, where he partly recovered his old vigour. Returning to England he settled at Leamington and was appointed medical adviser to the visiting justices of licensed houses for the care of the insane in the county of Warwick. In May, 1887, he had an attack of cerebral hæmorrhage accompanied by hemiplegia. He was slowly recovering from this when in October of the same year he had a relapse. After this his strength very slowly but steadily declined until the day of his death. As a physician he was astute and sound in his knowledge. An instance is remembered of an able diagnosis made by him with the stethoscope at a time when it was not so universally used. The case was one of pregnancy, and Dr. Fletcher from his examination of the patient predicted twins from the presence of two fœtal hearts—a diagnosis which was subsequently verified. His opinion was greatly sought after among a large *clientèle*. In the Black Country especially an appeal from his judgment was seldom considered necessary; indeed, many looked upon his presence as a dignity to dissolution and accepted with resignation the fiat he pronounced. When "Mister" Fletcher had been called in it was thought that everything which could be done for the patient had been accomplished. What character Dr. Fletcher bore among those who knew him best is well shown by the following remarks of the *Birmingham Post* appended to the obituary notice which appeared in that journal.

"This brief sketch of Dr. Fletcher represents an energetic physician settling in a large town and attaining a high reputation by sound mental power and sheer force of character; for as a new comer he could command no local influence. His humanity, charity, and full sympathy with the poor are shown throughout the record. His educational proclivities and his constructiveness and fertility in good designs are also strongly illustrated. Dr. Brown, in his 'Horæ Subsecivæ,' has written: 'The prime qualifications of a physician may be summed up in the words capax, perspicax, sagax, efficax: *capax*—there must be room to receive and arrange and keep knowledge; *perspicax*—senses and perceptions keen, accurate, and immediate, to bring in materials from all sensible things; *sagax*—a central power of knowing what is what, and what it is worth; of choosing and rejecting; and, finally, *efficax*—the will and the way, the power to turn all the other three (capacity, perspicacity, sagacity) to account in the performance of the thing in hand, and thus rendering back to the outer world in a new and useful form what you had received from it. These are the intellectual qualities which make up the physician.' These qualities Dr. Fletcher possessed in an eminent degree, and we may add that he was honourable, high-minded, and especially practical. His theological and political views were fixed, but he was free from sectarian narrowness and controversial tendency. Hence he contracted friendships with men of most opposite convictions, and his charity was founded on the broad basis of humanity. His moral courage was equal to every emergency, and as a friend he was constant and

true. Few men have served the town more faithfully or left more enduring records of their influence and labours."

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The death of the following eminent foreign medical man is announced:—Dr. Rudolf Heidenhain, Professor of Physiology in the University of Breslau, at the age of sixty-three years. After taking his degree in 1854 he worked under Du Bois-Reymond in Berlin, and became *privat docent* in Halle. He was appointed in 1858 to succeed Dr. Purkinjes as professor of physiology and histology in Breslau. During his long tenure of this chair he published many very important researches on physiological topics, including glandular physiology, muscles and nerves, animal heat, the pneumogastric nerve, hypnotism, and an important defence of vivisection, a subject on which he felt very strongly, sending to the Prussian House of Representatives on the occasion of an anti-vivisection debate a copy of a Manual of Physiology in which he had marked with a red pencil all the facts which were only discovered by means of experiments on living animals.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the subjects indicated:—

Surgery.—A. P. Ambrose, Westminster Hospital; C. Basan, Middlesex Hospital; J. L. F. De Gannes, University College Hospital, and C. C. Poole, Guy's Hospital.

Medicine.—J. C. Bell, Guy's Hospital; P. S. Blaker, Calcutta; J. H. Chambers, Manchester; F. E Feilden, St. Bartholomew's Hospital; T. C. Last, St. George's Hospital; C. H. Maskew, Birmingham; J. Prentice, Liverpool; and J. Spencer, Leeds.

Forensic Medicine.—P. S. Blaker, Calcutta; W. F. Chrispin, Leeds; F. E. Feilden, St. Bartholomew's Hospital; T. C. Last, St. George's Hospital; J. Prentice, Liverpool; and J. Spencer, Leeds.

Midwifery.—J. C. Bell, Guy's Hospital; P. S. Blaker, Calcutta; J. H. Chambers, Manchester; R Holt, Royal College of Surgeons, Ireland; T. C. Last, St. George's Hospital; and J. Prentice, Liverpool.

The diploma of the society was granted to the following candidates, entitling them to practise Medicine, Surgery, and Midwifery: Messrs. A. P. Ambrose, C. Basan, P. S. Blaker, J. L. F. de Gannes, C. H. Maskew, and C. C. Poole.

UNIVERSITY OF EDINBURGH.—At the special graduation ceremonial on Oct. 23rd the following degrees were conferred:—

Degree of Doctor of Medicine.—*Roderick Murdoch Matheson, Scotland, M.B., C.M., 1893.

Degrees of Bachelor of Medicine and Master in Surgery.—Frederick William Aikin, England; Ernest Lincoln Borthwick, Australia; David Elliot Dickson, Scotland; Joseph Dominic Doherty, Australia; David Leonard Fisher, Ireland; Frank Strachey Harper, England; William Herbert Joseph Hollinshead, Australia; Neil Thomson Kerr, Scotland; Thomas Campion Lauder, Ireland; Alexander Morison Little, Scotland; John Ewart Martin, England; Sarat Kumar Mullick, India; Samuel Knight Norris, England; George Hearn Parry, England; George William Payne, Barbadoes; Thomas Bullions Shoolbread, England; William Brown Thain, Scotland; John Thomarson, England; Robert Thornton, Scotland; George Ryan Twomey, Ireland; Syed Mohamed Varis, India; and George Fyfe Waterston, Scotland.

Degrees of Bachelor of Medicine and Bachelor of Surgery—Alexander John Travers Allan, Scotland; and James Duff Scott Millin, Scotland.

* Commended for Thesis.

FOREIGN UNIVERSITY INTELLIGENCE.—*Göttingen:* Dr. August Cramer, son of the late Professor of Psychiatry in Marburg, and *privat-docent* of Mental Diseases, has been granted the title of Professor.—*Cracow:* Dr. Obalinski, Extraordinary Professor, has been promoted to the Chair of Surgery in succession to Dr. Rydygier.—*Jena:* Dr. F. Gumprecht, *privat-docent* of Internal Medicine, has been appointed Extraordinary Professor of Forensic Medicine.—*Lemberg:* Dr. H. Schramm has been recognised as *privat-docent* of Surgery.—*Pavia:* Dr. Zoia, of Parma, has been recognised as *privat-docent* of Medicine.—*Prague* (Bohemian University): Dr Slavik has been recognised as *privat-docent* in Forensic Medicine.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.—At the annual stated meeting of the Royal College of Physicians of Ireland, held on St. Luke's Day, Oct. 18th, 1897, the following officers were elected for the ensuing year:—President: Sir George Duffey, M.D. Dub., F.R.C.P. Irel. Vice-President: Wallace Beatty, M.D. Dub., F.R.C.P. Irel. Censors: Wallace Beatty, M.D. Dub., F.R.C.P. Irel.; E. E. Lennon, F.R.C.P. Irel.; S. T. Gordon, F.R.C.P. Irel.; and R. A. Flynn, F.R.C.P. Irel. Examiners for the Licence to practise Midwifery: W. J. Smyly, M.D. T.C.D., F.R.C.P. Irel., and Andrew J. Horne, F.R.C.P. Irel. Additional Examiners, to take the place of an absent Censor or Examiner:—Medicine: A. K. F. M'Cutcheon, M.D. Dub., F.R.C.P. Irel. Medical Jurisprudence and Hygiene: H. C. Tweedy, M.D. Dub., F.R.C.P. Irel. Midwifery: Ernest H. Tweedy, F.R.C.P. Irel. Additional Examiners under the Conjoint Examination Scheme:—Biology: E. MacDowel Cosgrave, M.D. Dub., F.R.C.P. Irel. Chemistry and Physics: Henry T. Bewley, M.D. Dub., F.R.C.P. Irel., and Edwin Lapper, F.R.C.P. Irel. Materia Medica and Pharmacy: Ninian Falkiner, M.B. Dub., F.R.C.P. Irel.; Francis J. B. Quinlan, M.D. Dub., F.R.C.P. Irel. Physiology: John Mallet Purser, M.D. Lond., F.R.C.P. Irel. Pathology: H. T. Bewley, M.D. Dub., F.R.C.P. Irel. Medicine: John Murphy, F.R.C.P. Irel.; H. C. Drury, M.D. Dub., F.R.C.P. Irel. Hygiene and Forensic Medicine: Conolly Norman, F.R.C.P. Irel. College Examiners for Conjoint Diploma in State Medicine: Meteorology and Climatology: John William Moore, M.D. Dub., F.R.C.P. Irel. Hygiene: F. J. B. Quinlan, M.D. Dub., F.R.C.P. Irel. Chemistry: Edwin Lapper, F.R.C.P. Irel. Examiners in Preliminary Education: Languages: E. J. Gwynn, F.T.C.D. Science: C. Joly, F.T.C.D. Representative on General Medical Council: Lombe Atthill, M.D., Dub., F.R.C.P. Irel. Representatives on the Committee of Management under the Conjoint Examination Scheme:—John Magee Finny, M.D. Dub., F.R.C.P. Irel.; Sir Christopher J. Nixon, M.D. R.U.I., F.R.C.P. Irel.; and James Craig, M.D. Dub., F.R.C.P. Irel. Treasurer: Lombe Atthill, M.D. Dub., F.R.C.P. Irel. Registrar: James Craig, M.D. Dub., F.R.C.P. Irel. In the evening the annual banquet of the President and Fellows was held in the College Hall. The following Fellows were present: Sir George Duffey (President), the Provost of Trinity College (Honorary Fellow), Sir John Banks, K.C.B., Dr. Gordon, Dr. Little, Dr. Finny, Dr. Walter Smith, Dr. Grimshaw, C.B., Dr. J. W. Moore, Sir C. J. Nixon, Dr. Macan, Dr. Quinlan, Dr. Smyly, Dr. Redmond, Mr. Horne, Dr. Fitzgerald, Dr. Wallace Beatty, Dr. Bewley, Mr. Molony, Dr. O'Carroll, Mr. Lapper, Mr. Norman, Dr. Falkiner, Dr. Craig, Mr. S. T. Gordon, Mr. Lennon, Dr. Drury, Mr. Murphy, Dr. Parsons, Mr. Gray, Mr. Ernest H. Tweedy, Dr. M'Cutcheon, Mr. Flynn, and Mr. Montgomery. The guests were: The Right Hon. Lord Justice Fitzgibbon, the Right Hon. W. E. Lecky, M.P., the President of the Royal College of Surgeons, Sir William Stokes, Sir William Findlater, D.L. (President of the Incorporated Law Society), Surgeon-General Preston, P.M.O., Professor Cunningham, Dr. F. W. Kidd, Dr. Purefoy, Dr. O'Keefe, Mr. J. E. Kenny, Mr. Lentaigne, Dr. A. Smith, Dr. Myles, Dr. Patteson, Mr. Usher, Dr. Lane Joynt, Rev. E. Burke, Dr. Middleton, Mr. J. M. Colles, Mr. F. B. Ormsby, Dr. Lyndon, Mr. J. J. Murphy, Mr. John Tweedy, Mr. Joly, Mr. E. Gwynn, Mr. R. Moore, Mr. George Moore, Mr. J. C. Molony, Dr. Dempsey, Dr. E. H. Taylor, Mr. Symes, Dr. Arthur Duffey, Mr. Furlong, Dr. Glenn, Mr. S. W. Wilson, Dr. S. T. Gordon, Mr. Melfort D'Alton, Mr. E. Harris-Watson, and Mr. C. W. Wilson. Mr. D'Alton, Mr. Harris-Watson, and others contributed to the enjoyment of the evening by numerous songs to which Mr. C. W. Wilson played the accompaniments.

THE NEW MEDICAL DEFENCE ASSOCIATION, LIMITED.—The ordinary general meeting of the New Medical Defence Association, Limited, was held at the offices of the society, 15, King-street, Cheapside, E.C., on Oct. 27th. The report for the year 1896-97 showed that the financial position of the society was satisfactory, the cash available on June 23rd, 1897, being £375, as compared with £312 at the corresponding period in 1896. The total administration expenses for the year 1896-97 were £22 2*s.* 2*d.* The number of members is 149, of whom, however, forty-four have placed themselves out of benefit by being in arrear with their subscriptions. The report states that the experience gained in the past shows that a subscription of 5*s.* a year will be sufficient to provide the necessary funds for pure medical defence work if the membership becomes considerable. One of the instances in which the association took action occurred in the beginning of 1897, when a member was threatened with legal proceedings for alleged malpraxis in connexion with a midwifery case. A letter was accordingly written to the person who threatened proceedings, and nothing further has been heard of the matter.

LIFEBOAT SATURDAY IN BRISTOL.—Lifeboat Saturday was held in Bristol on Oct. 23rd. This is the fourth annual effort of the kind, the first having taken place in 1894; as a result of the three previous collections £1200 have been forwarded to the institution.

THE SWANSEA MURDER CASE.—Timothy S. Jones, a medical man, who was sentenced in November last to penal servitude for life in respect of the death of a young woman at Swansea upon whom he had performed an illegal operation, has had his sentence reduced by the Home Secretary to twelve years.

THE CHELTENHAM DELANCEY HOSPITAL.—The committee of the Gloucestershire County Council in their report draw attention to the successful results of good hospital treatment as shown by the returns of the Cheltenham Delancey Hospital, where out of 263 cases (in two years) of scarlet fever, small-pox (23 cases), enteric fever, and diphtheria, not a single death had occurred.

INSURANCE FRAUD.—During the hearing of a case at Truro on Oct. 22nd Judge Granger said that the insurance policy had been fraudulently obtained by an agent and was accepted by the medical officer for the Leeds and General Friendly Society. The man insured, represented as being in good health, was an insane paralytic. The judge gave a verdict for the society, but as he thought they should have found out the case earlier costs were not allowed.

UNIVERSITY OF WALES.—The annual meeting of the court of the University of Wales was held at Cardiff on Oct. 22nd under the presidency of Dr. Isambard Owen, the Senior Deputy Chancellor. A vote of condolence was passed with Mrs. Vaughan; Dr. Owen, in proposing this, alluded to the valuable services of their ex-president in the establishment of the educational system of Wales. In the afternoon a congregation of the University was held at the Park Hall for the purpose of admitting graduates to their degrees, this being the first degree day of the Welsh University.

THE ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about $180, will be made on July 14th, 1898, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but must not have been published, and must be received by the secretary of the College on or before May 1st, 1898. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award. The Alvarenga Prize for 1897 has been awarded to Dr. Joseph Collins, of New York, for his essay entitled "Aphasia."

NORTH-EASTERN HOSPITAL FOR CHILDREN.—The committee of the North-Eastern Hospital for Children, Hackney-road, are making energetic efforts to raise funds for the erection of the additional buildings required for the completion of the original scheme. The new hospital, as designed in 1874, was intended to contain 100 beds, and the freehold of a site sufficiently large for a hospital of that size had been previously acquired, but it was found impossible to obtain sufficient money at once to carry out the plans in their entirety, and the hospital was, therefore, constructed to accommodate fifty-seven beds as at present, the erection of the remainder of the building being deferred. Last year the committee decided, after the most careful deliberation, to take steps as soon as possible to complete the hospital in pursuance of the original scheme so as to cover the whole of the land at the corner of Hackney-road and Goldsmith-row. This will, of course, involve a very heavy expenditure. Mr. Maurice Rüffer, a former member of the committee, has generously offered to head the building fund with a donation of £500 on condition that a sum of £7000 is subscribed during the year. The report for 1896 shows that 705 in-patients were treated in the course of that year; there were also 15,272 out-patients, who made 55,149 attendances.

THE ROYAL ALBERT ASYLUM FOR IDIOTS AND IMBECILES OF THE NORTHERN COUNTIES.—The annual meeting of this institution was held in the town hall of Chester on Oct. 21st, the Duke of Westminster presiding. The report stated that there were 573 patients in the institution—viz., 380 boys and 193 girls. The finances were in a sound condition, but it would be necessary to make a strong appeal for the proposed extension of the asylum and for an increased income to maintain an additional 150 patients. During the year £19,784 7*s.* had been received on maintenance account, on sustentation (endowment) account £5076 17*s.* 11*d.*, and for the estate and buildings improvement account £1225 6*s.* The Earl of Derby has been appointed a trustee of the asylum in succession to the late Earl of Sefton.

THE INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The annual general meeting of this society was held at the Holborn Restaurant on Saturday last. Dr. E. Seaton presided. The meeting commenced with an expression of thanks being cordially voted to the retiring president, Dr. G. P. Bate, after which the report of the society for the past session was read. It stated that the society numbered 674 members, and that there were now nine branches in different parts of the kingdom. In his presidential address the chairman dealt with the relation of medical societies to the Public Health Service, urging upon members the desirability of doing their utmost to bring about the amalgamation of the various associations connected with the public health. One of the advantages of amalgamation would be an increase of influence and power in dealing with the questions of public importance with which they were concerned. He instanced the recent Maidstone epidemic as an example of the failure to recognise the full meaning and value of analysis of water-supplies. At the conclusion of his address he called attention to the fact that it was the fiftieth anniversary of the appointment of the first medical officer of health in England—namely, Dr. Duncan, of Liverpool—and he expressed the hope that the society would commemorate the event by a union of the societies over which the interests of public health administration were at present scattered far too widely.

UNIVERSITY OF CAMBRIDGE.—The election of a Professor of Pathology will take place on Saturday, Nov. 6th, at Downing College Lodge. The electors are Dr. Bradbury, Dr. Gaskell, Professor Foster, Dr. J. F. Payne, Dr. Allbutt, Sir J. Paget, Dr. D. MacAlister, and Dr. Latham. Mr. J. Graham Kerr, B.A., of Christ's College, has been appointed Demonstrator in Animal Morphology, in the place of Mr. E. W. Macbride, lately appointed Professor of Zoology in McGill University, Montreal. At the congregation on Oct. 14th the degree of Doctor of Medicine was conferred on A. J. H. Saw, M.B., B.A., Trinity College; W. J. Harris, M.B., B.A., Caius College; and F. M. Rowland, M.B., B.A., Caius College. The degrees of M.B. and B.C. were conferred on E. A. Houseman, B.A., Clare College, and A. M. Barraclough, B.A., Christ's College.—Professor Wiltshire has presented to the Mineralogical Museum his large and precious collection of minerals; it includes a number of beautiful specimens of high scientific value. The zoological museum has also been enriched by the addition of a fine collection of polyzoa presented by Miss E. C. Jelly, and of the skeleton of a fine elephant seal the gift of Sir W. L. Buller. The Registrary announces that the First and Second Examinations for M.B. will begin on Dec. 13th; that Parts I. and II. of the Third Examination will begin on Dec. 14th, and that the examination for the M.C. degree will begin on Dec. 17th. The names of candidates should be sent in by Nov. 30th. The following registered practitioners have been successful in the recent examination for the diploma in Public Health: A. J. Adkins, A. Balfour, P. L. Benson, W. M. Brown, G. H. Cock, W. S. Cook, R. Dick, C. R. Elliott, R. A. Farrar, S. Gillies, C. H. Graham, M. Kelly, A. J. Laird, C. F. Lillie, A. T. McConkey, R. J. Millard, T. B. Stedman, and J. R. Watson. On Oct. 21st the number of freshmen matriculated was 872, an increase of about 40 on last year's figures. The returns as to the number of medical students are not yet complete. The following have been appointed examiners for the first and second M.B. examinations:—Physics: Mr. Wilberforce and Mr. Capstick; Chemistry: Mr. Sell and Mr. Rubemann; Biology: Mr. Lister and Mr. Seward; Pharmaceutica Chemistry: Mr. Ivatt and Mr. Adie; Anatomy: Dr

Barclay-Smith and Professor A. M. Paterson; Physiology: Dr. Shore and Dr. A. D. Waller.

MR. THOMAS WEBB FOWLER, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., has been nominated for the Mayoralty of Coventry.

SUPERANNUATION ALLOWANCE. — Mr. Richard Turner, M.R.C.S. Eng., late medical officer of the Lewes Prison, has been awarded by the Treasury a retiring pension of £138 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, MARYLEBONE-ROAD, N.W.—The Committee of Management of Queen Charlotte's Lying-in Hospital, Marylebone-road, have received a donation of £1000 from Mr. Henry L. Raphael, to name a bed in perpetuity in memory of the late Mrs. H. L. Raphael.

ST. LUKE'S DAY.—Under the ægis of the Guild of St. Luke a service was held in St. Paul's Cathedral on Oct. 19th. The service was the ordinary Evensong, the sermon being preached by the Archbishop of York from the text, "Himself took our infirmities and bore our sufferings," with the object of showing the inter-relation between the medical and clerical callings.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—A meeting of the governors of this college was held on Oct. 20th under the presidency of Lord Tredegar. Lord Windsor and Dr. W. T. Edwards were re-elected vice-presidents and Mr. L. Tylor was reappointed treasurer. The principal stated that the building fund of the college amounted to £39 877, and he anticipated that the total would reach £40,000 before the end of the year.

MEDICAL MAGISTRATES. — Mr. F. Bagshawe, M.D. Cantab., F.R.C.P. Lond., of St. Leonard's-on-Sea, has been placed on the Commission of the Peace. Mr. Thomas B. Belgrave, M.D. Edin., M.R.C.S. Eng., of Silverton, New South Wales, Mr. H. I. Tresidder, L.R.C.P. Lond.; M.R.C.S. Eng., of Dubbo, New South Wales, Mr. George E. Rennie, M.D. Lond., M.R.C.S. Eng., of Sydney, New South Wales, and Mr. George L. L. Lawson, M.R.C.P. Edin., M.R.C.S. Eng., of Yalgoo, Western Australia, have been appointed Justices of the Peace.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The quarterly meeting of the Devonshire Hospital and Buxton Bath Charity was held in the hospital buildings at Buxton on Oct. 2nd, Mr. Henry Shaw, J.P., being in the chair. The report stated that 250 patients were on the books at the end of June and that 1044 were admitted during the three months ended Sept. 30th. Of this number 951 were discharged as "improved," 68 as "no better," 4 at their own wish, 2 as "unfit cases," 2 were made out-patients, 1 died, and 266 remained on the books.

THE Governors of the Royal Kepier Grammer School, Houghton-le-Spring, have awarded the Heath Medical Scholarship to Thomas Rowell, a pupil of the school. This scholarship, which is tenable for three years at the University of Durham College of Medicine, Newcastle-on-Tyne, was founded a few years ago at the school in memory of the late George Yeoman Heath, M.B. Lond., F.R.C.S. Eng., Professor of Surgery in the University of Durham. The new scholar is a son of Mr. Rowell, a practitioner of Houghton-le-Spring.

THE NEW INFECTIOUS DISEASES HOSPITAL FOR GLOUCESTER.—Last week the Mayor of Gloucester, accompanied by various members of the corporation, laid the foundation stone of the new infectious diseases hospital for Gloucester. The site is what is known as Vineyards Hill, Over, about two miles from the city, and is an excellent position with a southern exposure. The position of the wards has already been set out in such a manner as to allow of future extension if necessary. The plans provide for two pavilions for fever cases, each containing six beds for males and six for females, in addition to which there will be an observation ward containing four beds for males and four for females. The total number of beds will therefore be thirty-two. The connexion between the pavilions and the administrative block will be by covered ways with open sides, and the roadways will enable the ambulance to approach the wards separately. It is proposed that the buildings shall be of red brick, and the whole of the pavilion and administrative block will be placed on concrete with through ventilation beneath the floors. The architects are Mr. F. Waller and Mr. H. Medland, both of Gloucester. Temporary wards of corrugated iron have been placed upon the site for the reception of the patients during the erection of the permanent buildings.

PRESENTATIONS TO MEDICAL MEN.—On Oct. 21st a numerous meeting of the Leeds police force assembled at the town-hall to receive from the Lord Mayor of the city the certificates gained by them in connexion with the St. John Ambulance Association; at the same time he presented, on behalf of the men, a purse of gold to Mr. G. H. Heald, L.R.C.P. Edin., M.R.C.S. Eng., their instructing surgeon on First Aid.—At a meeting of the aldermen and residents, held in the town-hall, Dubbo, New South Wales, the Mayor presiding, Mr. Edward J. Haynes, L.R.C.P. Lond., M.R.C.S. Eng., was presented with a farewell address on his leaving the town.—Mr. Charles J. Whitby, B.A., M.D. Cantab., who has been for the past seven years resident physician at the Limpley Stoke Hydropathic Establishment, near Bath, has been presented with a purse of gold by his friends and patients upon the occasion of his receiving another appointment.

Appointments.

Successful Applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

AITKEN, W. B., M.B., Ch.M. Glasg., M.R.C.S., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Belalie, South Australia.

ALLWORK, F., L.S.A. Lond., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the districts of Alma Plains, Gilbert, Rhynie, and Stockport, South Australia.

ANGOVE, F. W., M.R.C.S., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the districts of Highercombe and Teatree Gully, South Australia.

BENNETT, A. H., M.B., Ch.M. Aberd., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Crystal Brook, South Australia.

BERKELEY, G. H. A. C., M.B., B.C. Cantab., M.R.C.P., M.R.C.S., has been appointed an Out-patient Physician to the Chelsea Hospital for Women.

BOROUGH, F., M.R.C.S., has been re-appointed a Surgeon to the Derby Provident Dispensary.

BORTHWICK, THOS., M.D. Edin., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Campletown, South Australia.

BOULTON, ARTHUR, D.P.H., M.R.C.S. Eng., L.R.C.P. Lond., has been re-appointed Medical Officer of Health by the Horncastle Rural District Council.

BROOKES, EDWD., M.B. Melb., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Yatala North, South Australia.

BROWN, R. C., M.B. Melb., has been appointed Officer of Health for Wycheproof Shire, vice R. A. P. Forrester.

BRUEHL, S., M.D., Ch.D. Halle, has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Hawker, and a radius of fifteen miles from the township, South Australia.

BRYSON, L. H., M.B. Edin., L.R.C.P. Lond., M.R.C.S., has been re-appointed a Surgeon to the Derby Dispensary.

CLEMONS, GEO. E., M.D., Ch.M. Edin., has been appointed an Honorary Medical Officer to the Queen Victoria Maternity Hospital, Launceston, Tasmania.

COLEMAN, THEO., M.D., C.M. Toronto, has been appointed a Clinical Assistant to Out-patients at the Chelsea Hospital for Women.

COOK, F. E., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the districts of Laura Corporation, Boogoolie, and Hundred of Appila, South Australia.

COPESTAKE, W. G., M.R.C.S., has been re-appointed a Surgeon to the Derby Provident Dispensary.

COUNTER, F. W., M.B., Ch.M. Aberd., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Adinga, South Australia.

CURGENVEN, W. G., M.D. St. And., M.R.C.S., has been re-appointed a Surgeon to the Derby Provident Dispensary.

DOBIE, H. E. N., L.R.C.S. Edin., has been appointed a Public Vaccinator for Quambatook, Victoria, Australia.

ENGELHART, A., M.D. Giessen, has been appointed a Medical Officer for the Destitute Poor in the district of Lacepede, South Australia.

ESAU, H. C. F., M.D. Gott., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Onkaparinga, South Australia.

FEIGE, K. A. A., M.D. Dresden, has been appointed a Medical Officer for the Destitute Poor and Aborigines in the districts of English and Neales, South Australia.

FETHERSTON, G. H., M.D. Edin. and Melb., L.R.C.S., L.K.Q.C.P. Irel., has been appointed President of the Medical Board of Victoria, Australia.

FINNISS, J. H. S., M.B., Ch.M. Edin., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the districts of Brighton Corporation, Glenelg Corporation, and Marion, South Australia.

FOULDS, H. F., M.R.C.S., has been re-appointed a Surgeon to the Derby Provident Dispensary.

GANDEVIA, N. B., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator for Surrey Hills, Victoria, Australia, vice W. C. C. Muir, resigned.

GLYNN, E., L.K.Q.C.P., L.R.C.S. Irel., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the districts of Belvidere and Kapunda Corporation and district, South Australia.

GOLDSMITH, F., M.B., Ch.B. Adel., has been appointed a Member of the Licensing Bench for Palmerston Licensing district, South Australia, vice L. S. O'Flaherty, resigned.

GREENE, H. M., M.D. Brux., L.S.A. Lond., has been re-appointed a Surgeon to the Derby Provident Dispensary.

GREGERSON, W. I., M.B., Ch.B. Melb., M.R.C.S., has been appointed a Medical Officer for the Destitute Poor and Aborigines in the district of Woodville, South Australia.

GREGORY, T., L.R.C.P. Lond., M.R.C.S., has been appointed Second Assistant Medical Officer to the Crumpsall Workhouse, Manchester Township.

GUTTERIDGE, M. W., M.B., Ch.M. Edin., M.R.C.S., has been appointed an Honorary Medical Officer to the Queen Victoria Maternity Hospital, Launceston, Tasmania.

MACDONALD, WILLIAM, L.R.C.S., L.R.C.P. Edin., has been appointed Senior House Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, vice W. Cunningham, Milroy, resigned.

MAXWELL, K., M.B., Ch.M. Edin., has been re-appointed an Honorary Medical Officer to the Castlemaine Hospital, Victoria, Australia, and also appointed Officer of Health for the borough of Chewton, and Shire of Mount Alexander, Victoria, vice G. M. Reid.

MEDCALF, E. S., L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer of Health for Hove.

MURPHY, R. W., L.R.C.P. Edin., M.R.C.S., has been appointed an Honorary Consulting Physician to the Queen Victoria Maternity Hospital, Launceston, Tasmania.

O'NEILL, J., M.D. Edin., has been re-appointed an Honorary Medical Officer to the Castlemaine Hospital, Victoria, Australia.

PHILIPSON, GEORGE HARE, M.D., D.C.L., F.R.C.P., has been appointed Medical Visitor to the Dunston Lunatic Asylum, vice Dennis Embleton, retired.

PIKE, CHAS., J., M.B., Ch.B. Lond., M.R.C.S., has been appointed an Honorary Medical Officer to the Queen Victoria Maternity Hospital, Launceston, Tasmania.

REDMOND, JOHN J., M.A., M.D., M.Ch., M.A.O. Irel., has been appointed an Honorary Medical Officer to the Croydon General Hospital.

REID, W. JAS., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been re-appointed a Surgeon to the Derby Provident Dispensary.

RICHARDSON, C. S., L.K.Q.C.P. Irel., L.R.C.S., Edin., has been appointed an Honorary Medical Officer to the Queen Victoria Maternity Hospital, Launceston, Tasmania.

ROWANTREE, WILLIAM, L.R.C.P., L.R.C.S. Irel., has been appointed Surgeon to St. Michael's Hospital, Kingstown.

SPROULE, W., M.D. Edin., has been appointed Surgeon to the Normanton Hospital, Queensland.

THOMPSON, L. G., M.D., Ch.M. Aberd., L.R.C.P., L.R.C.S. Edin., has been appointed an Honorary Consulting Physician to the Queen Victoria Maternity Hospital, Launceston, Tasmania.

WADDY, F. H., M.D. Glasg., has been appointed an Assistant Medical Officer for the Workhouse of the Sheffield Union.

WELLS, ROBERT S., L.R.C.P. Edin., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Parish of Kirkcowan, Wigtownshire.

WILSDEN, ALFRED, M.B., C.M. Aberd., has been appointed a Clinical Assistant to Out-patients at the Chelsea Hospital for Women.

WILSON, JOHN T., M.B., Ch.M. Edin., has been appointed an Honorary Medical Officer to the Queen Victoria Maternity Hospital, Launceston, Tasmania.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CAMBRIDGESHIRE, &C., LUNATIC ASYLUM, at Fulbourn, near Cambridge.—Assistant Medical Officer, unmarried. Salary £140 per annum, with board, lodgings, and attendance, in the Asylum. Applications to the Clerk to the Visitors, Cambridge.

CARDIFF INFIRMARY.—Assistant Resident Physician for six months. Board, washing, and apartments provided.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—Junior House Surgeon and Dispenser. Salary £50 per annum, with board, apartments and laundress

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Registrar for one year. Honorarium of 20 guineas per annum.

CONSUMPTION HOSPITAL AND ORPHAN HOMES OF SCOTLAND, Bridge of Weir.—Resident Medical Officer. Salary £80 per annum, with furnished apartments, board, &c. Applications to the Hon. Secretary, 194, St. Vincent-street, Glasgow.

CORPORATION OF CALCUTTA, Bengal, India.—Health Officer to the town of Calcutta for five years. Salary of not less than 1200 rupees and not more than 1500 rupees a month, with reasonable horse-allowance for out-door inspection, not exceeding 100 rupees a month. Applications to Mr. W. R. Macdonald, Secretary to the Corporation.

GREENWICH UNION INFIRMARY.—Second Assistant Medical Officer, unmarried. The appointment will terminate on Dec. 25th, 1898. Salary £80 per annum, with board, lodging, washing, and attendance in the Infirmary, and £3 per annum in lieu of beer. Applications to the Clerk to the Guardians, Union Offices, Greenwich, S.E.

MIDDLESEX HOSPITAL, W.—Surgical Registrar.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon for six months. Board, apartments, and washing provided.

PARISH OF BIRMINGHAM.—Resident Assistant Medical Officer at the Workhouse Infirmary for twelve months. Salary £100 per annum, with furnished apartments, rations (which do not include alcoholic liquors), coals, gas, washing, and attendance. Applications to the Clerk to the Guardians, Parish Offices, Birmingham.

PONTEFRACT GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Salary, £130 per annum, with furnished rooms, fire, lights, and attendance.

RADCLIFFE INFIRMARY, Oxford.—Honorary Physician.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields.—Senior House Surgeon.

SALISBURY INFIRMARY.—Assistant House Surgeon, unmarried. Board, lodging, and washing provided.

SAMARITAN FREE HOSPITAL, Marylebone-road, London, N.W.—Anæsthetist.

SEAMEN'S HOSPITAL SOCIETY, "DREADNOUGHT," Greenwich, S.E.—Surgeon for Dispensary, 51, East India Dock-road. Salary £63. House Surgeon for "Dreadnought" Hospital, Greenwich. Salary £50 per annum, with board and residence. Junior House Surgeon for the Branch Hospital, Royal Albert Dock, E. Salary £50 per annum, with board and residence. Applications to the Secretary, Greenwich.

SOUTHPORT INFIRMARY.—Honorary Surgeons.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road, London.—Resident Medical Officer, unmarried. Salary, £105, with residence and attendance. Applications to the Hon. Secretary, 23, Gordon-street, Gordon-square, W.C.

THE HOSPITAL FOR WOMEN, Soho-square, London.—House Physician for six months. Salary £30 for that period.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea.—Assistant Physician to the Out-patients, for two years. Also Physician to the In-patients.

WEST HAM HOSPITAL, Stratford, E.—Junior House Surgeon for one year. Salary £50 per annum, with board, residence, &c.

WESTBOURNE PROVIDENT DISPENSARY AND MATERNITY, 241, Harrow-road, London, W.—Surgeon. Also Dental Surgeon. Applications to the Secretary, 30, Chippenham-road.

Births, Marriages, and Deaths.

BIRTHS.

BOXALL.—On Oct. 21st, at Church Hill, Rudgwick, Sussex, the wife of Frank Boxall, M.R.C.S., L.R.C.P., of a daughter.

BROOKS.—On Oct. 23rd, at Queen-street, Wolverhampton, the wife of J. Pratt Brooks, M.R.C.S., of a son (John Churchill).

FALVEY.—On Oct. 23rd, at Challoner-street, West Kensington, the residence of her mother, Mrs. Falvey, wife of Surgeon-Major Falvey, F.R.C.S.I., A.M.S., of a son.

FERGUSON.—On Oct. 23rd, at Ferncombe, New West-end, Finchley-road, the wife of G. Gunnis Ferguson, M.B., C.M., of a daughter.

ROSS.—On Oct. 20th, at Burslem, Staffordshire, the wife of W. Levingston Ross, L.R.C.S. and L.R.C.P.I., of a son.

THOMPSON.—On Oct. 26th, at 6, West-street, Scarborough, the wife of Geoffrey W. Thompson, M.D. Cantab., M.R.C.S., of a son.

MARRIAGES.

ADAMSON—DRAPER.—On Oct 23rd, at St. George's, Hanover-square, Horace G. Adamson, M.D., of Guildford, to Mabel Amy, younger daughter of the late Henry Valentine Draper.

CROSS—PEACOCK-EDWARDS.—On Oct. 26th, at St. Paul's Church, Valetta, Malta, Horace Edward Firmin Cross, Fleet Surgeon Royal Navy, third son of the late Robert Cross, M.D., Berkeley-square, London, to Florence Mary, fourth daughter of William Peacock-Edwards, of Belgrave-crescent, Edinburgh.

FISHER—TURNER.—On Oct. 25th, at the parish church, Little Oakley, Northamptonshire, Henry Holdrich Fisher, M.D., of Sittingbourne, Kent, to Caroline Maud Irene, second daughter of the Rev. Vaughan Charles Turner, rector of Little Oakley.

HARPER—HEALD.—On Oct. 21st., at All Saints' Church, Southport, Henry Cecil Harper, M.R.C.S. Eng., L.R.C.P. Lond., of Stowmarket, to Margaret Jeannie Heald, youngest daughter of W. N. Heald, Esq., J.P., of Westbank, Southport.

HAYMAN—SANDERS.—On Oct. 21st, at Sutton-on-the-Forest, Yorkshire, Frederick Dell Hayman, M.R.C.S., Victoria, Australia, to May, third daughter of Rev. H. M. Sanders, vicar of Sutton-on-the Forest.

WALKER—DOUGLAS.—On Oct. 21st., at the parish church, St. Mary's, Walmer, Kent, Henry Roe Walker, M.R.C.S., &c., of Walmer, to Evelyn Frances Gordon, third daughter of Admiral Robert Gordon Douglas, of Seafield, Walmer.

DEATHS.

DUNCAN.—On Oct. 22nd, at Westminster Hospital, Brigade-Surgeon James Shand Duncan, L.R.C.S. Edin., late 81st Regt. and A.M.D., aged 61 years.

FLETCHER.—On Oct. 21st, at his residence, Clarendon-crescent, Leamington, Thomas Bell Elcock Fletcher, M.D., F.R.C.P. Lond., in his 91st year.

HINGSTON.—On Oct. 21st, at Liskeard, Cornwall, Andrew Hingston, M.R.C.S. Eng., L.S.A., J.P., aged 76 years.

O'GRADY.—On Oct. 18th, Edward Stamer O'Grady, M.B., Ch.M., T.C.D., F.R.C.S.I., of Merrion-square, Dublin, and Ballybehey, Co. Limerick.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (3rd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), ing's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.).

THURSDAY (4th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (5th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (6th).—Royal Free (9 A.M. and 2 P.M.), Middlesex, (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (2nd).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. D'Arcy Power: Empyema of the Antrum in a Child aged eight weeks.—Mr. P. Furnivall: A Pathological Report on a case of Acromegaly, with an Analysis of Thirty-three Post mortem Examinations of Cases of Acromegaly (exhibition of casts, photographs, macro- and microscopic specimens).—Dr. J. Calvert: A specimen of Calcifying Pericarditis.—Mr. W. G. Spencer: (1) Calculous Disease of the Salivary Glands; (2) Nerves from a Case of Chronic Traumatic Neuritis.—Dr. H. Rolleston: Pituitary Body from a Case of Acromegaly.—Mr. C. J. Seligmann will show Live Bilharzia Ova Hatching.

WEDNESDAY (3rd).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Cullingworth, Dr. Williamson, and others. Paper:—Mr. Bland Sutton: On Abdominal Hysterectomy for Myoma of the Uterus,—Dr. W. Tate: Three Cases of Pyometra complicating Cancer of Cervix Uteri.

THURSDAY (4th).—CHEMICAL SOCIETY (Burlington House, W.)—Prof. J. Dewar: The Properties of Liquid Fluorine: The Liquefaction of Air and the Detection of Impurities: The Absorption of Hydrogen by Palladium at High Temperatures and Pressures.

FRIDAY (5th).—WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, W.).—8.30 P.M. Mr. M. Thompson: A Case of Cerebral Hæmorrhage in a Child aged thirteen years.—Dr. H. J. Davis: Gunshot Injuries in the late Greco-Turkish War.—Mr. G. E. Twynam: Nephrectomy and its Relation to Pregnancy.

LECTURES, ADDRESSES, DEMONSTRATIONS, ETC.

MONDAY (1st).—LONDON POST-GRADUATE COURSE.—London Throat Hospital, Gt Portland-st., W., 8 P.M., Dr. G. Stoker: Impaired Movements of the Vocal Cords.

TUESDAY (2nd).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Delusional Insanity; Paranoia.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Abraham: Late Syphilides.

HOSPITAL FOR NERVOUS DISEASES (73, Welbeck-street).—4.30 P.M. Mr. E Cotterell: Cases Illustrating the Surgery of the Brain.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Beevor: On the Examination of the Action of Muscles.

WEDNESDAY (3rd).—LONDON POST-GRADUATE COURSE.—Parkes Museum, Margaret-st., W., 4.30 P.M., Prof. A. Wynter Blyth: Sources of Water.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Green: Cases in the Wards.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. S. Edwards: Surgical Cases.

EVELINA HOSPITAL (Southwark-bridge-road, S.E.).—4.30 P.M. Mr. A. H. Tubby: Spinal Caries and some Points in its Recent Treatment. (Post Graduate Course.)

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq.).—5 P.M. Dr. Morgan Dockrell: Eczema.

THURSDAY (4th).—ROYAL COLLEGE OF PHYSICIANS—5 P.M. Dr. E. Markham Skerritt: On Prognosis in Heart Disease. (Bradshaw Lecture.)

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. G. Oliver: The Pulse.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq.).—5 P.M. Dr. Morgan Dockrell: Leprosy.

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond street, W.C.).—4 P.M. Dr. Barlow.

FRIDAY (5th).—LONDON POST-GRADUATE COURSE.—King's College, 5 to 6 P.M., Prof. Crookshank: Tuberculosis and Leprosy.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 28th, 1897.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb	Remarks at 8.30 A.M.
Oct. 22	30·46	N.E.	...	62	53	43	49	52	Overcast
,, 23	30·23	E.	...	71	57	51	50	53	Overcast
,, 24	30·21	E.	...	86	57	49	49	52	Cloudy
,, 25	30·20	E	0·10	85	57	44	44	45	Foggy
,, 26	30·29	N.E.	0·07	70	59	45	50	51	Raining
,, 27	30·30	E.	...	62	57	48	49	50	Foggy
,, 28	30·25	E.	...	51	51	49	49	49	Foggy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

GLANDULEN TABLETS.

MESSRS. THOMAS CHRISTY AND CO., 25, Lime-street, E.C., have forwarded to us samples of glandulen, an animal product prepared in tablet form for medicinal use by Dr. Hofmann, manufacturing chemist, Meerane, Saxony. Glandulen is obtained from the bronchial glands of freshly-killed sheep. Having been washed with alcohol, freed from fat, and dried in vacuo at a low temperature, the glands are reduced to powder, to which sugar of milk is added in such proportion that when compressed into tablets weighing 0·25 gramme (3¾ grains), each tablet is equivalent to 0·25 gramme (3¾ grains) of the fresh glandular substance. One tablet is given three times a day at first, the dose being gradually increased to five tablets three times daily. Glandulen is stated to have been tried in cases of tuberculosis of the lungs.

MEDICAL BIOGRAPHIES: A QUERY.

To the Editors of THE LANCET.

SIRS,—Could you or any of your readers tell me where to obtain the biographies of Dr. John Fothergill, Boerhaave by Johnson Abercrombie, and Dr. Stokes, mentioned in the Students' Number of THE LANCET of September, 1896, who is the publisher, and what is the price? I am, Sirs, yours faithfully,

Oct. 14th, 1897. R. W. H.

*** A good account of Dr. John Fothergill, read before the Medical Society of London in 1782, will be found in the third volume of his works, by John Coakley Lettsom. "The Life of Boerhaave," by Dr. Johnson, will be found in Johnson's works. A short account of Dr. Stokes, of Dublin, is given in "Eminent Doctors," by G. J. Bellamy. The life of Abercrombie is also shortly given in encyclopædias.—ED. L.

MEDICAL DICHOTOMY.

IN an article on this thorny subject which appears in *Le Courrier Médical* the writer, Dr. Cézilly, quotes Dr. Huguenin to the following effect: "1. When a medical practitioner is doubtful about his diagnosis, prognosis, or treatment, or else merely wishes to cover his responsibility, he calls in the consultant of his choice, who may be professor, deputy professor, hospital physician, or even a general practitioner with no other distinction than his knowledge and uprightness. What should he demand by way of honorarium? Twice his usual fee, provided that the amount is in no case less than ten francs. 2. A capricious patient having little confidence in his own medical man, or else desirous of ascertaining whether his cure can be accelerated, calls in a consultant and, as it were, imposes him upon the practitioner in attendance. What fee should the latter receive? A quarter of the amount given to the consultant. 3. Assistance at an operation of any description, but without actual participation in the operative procedure, should be recompensed as follows: Fifty francs if the patient belong to the middle classes, one hundred francs if he be wealthy. 4. When the assistant has taken part in the operation the operating surgeon alone is competent to decide what his remuneration should be, and it is also the duty of this gentleman, not only to apply for the money, but also to indicate its destination. The sum in question should, however, never be less than 150 francs."

COMPETITION IN THE COLONIES.

MR. EDITOR. Gisborne, Sept. 4/97.

DEAR SIR,—I hope you will excuse me for taking the liberty of sending you the enclosed I do not know if such cases comes under your notice I think that different of the Dr's in this Coloney does not understand such cases and it is not in my line to spend time with them being a long way from being a medical man I have only treated a very fue cases.

If you see nothing in the enclosed please comit it to the Wast paper Baket and oblidge—You most obedent servant,

JAMES ROSIE.
Care of Mr. Cecil Lewis, Produce Merchant,
Gisborne, New Zealand.

[ENCLOSURE.]

To the Editor of THE LANCET.

The young Ladie was a little over 16 years her trouble began with felling lonesome (Languid) and soon after a weakness in her limbs she did not feel inclined to do any thing But as the weather was very warm they did not think much about it as she had no pain but when her monthlys stoped the Dr then advised her to take Sea trip they so and got other medical advise he gave her a Tonic and expected she would soon be well short after returnig home they saw she was losing Flesh as well as her appetite the Dr was called he thought he could do some thing for her now as the weather was cool But her skine (Flesh) began to feel cold and she tooked pail yet no pain she soon got so weak that she had to take to bed she soon got so Bad that nothing would stay on her stomach. When I saw her for the first time she scarcly could move her limbs and was just Skine and Bones and felt cold yet she had only a little pain across the fore head. In a fue days under my treatment she could move her limbs and a fue days more we got her out of Bed she is now as well as ever she was. From the first appearne of her trouble to the time she was out of Bed would be over six months.

J. R.

*** We see a great deal in the enclosure, and so have not "comited" it to the "Wast paper Baket." We see that a person "a long way from being a medical man," and also from being a commonly educated man, has calmly taken upon himself medical duties. Mr. Rosie is recommended to understand that if he had had under his care a case which had ended fatally through lack of medical aid, instead of a case the natural and everyday termination of which was perfect recovery, there is no moral reason why he should not be hanged.—ED. L.

"THE TREATMENT OF CORNS."

To the Editors of THE LANCET.

SIRS,—A layman has communicated to me a little "tip" concerning corn-plasters which may prove of service to your correspondent, Mr. J. T. Jones. "Some ten years ago," he writes, "I was a martyr to corns. The putting on of a boot was worse than I imagine the rack would have been. I was advised to try corn-plasters but not to 'apply 'em as you buy 'em,' because that, I was told, might aggravate my trouble. I was instructed to cut the plaster in two across the centre (see diagram) and then to apply the two sections round the base of the corn. This method afforded me relief at once, and in six months I had got rid of corns which had previously crippled me."

It seems to me that a corn-plaster used in this way would often gain in value, as the two sections can be fitted round the base of the corn accurately and tightly in a way that is impossible when dealing with a ring of a fixed circumference. I am, Sirs, yours faithfully,

Oct. 25th, 1897. M.D., &c.

PLAGUE SPAWN.

AMONG the many evils which accompany plagues—we use the word in the sense of epidemic disease generally—is the host of lying scoundrels to which they give birth, who trade upon people's fears, and under the cloak of religion line their pockets with the gold of their dupes. There were plenty of them in the great plague of London, of whom many, we are glad to say, died therefrom. They issued handbills and held meetings, but we doubt whether any such infamous bill as the one here reprinted has ever been issued before.

NOTICE.

SAD FEVER CALAMITY IN MAIDSTONE.

'LIFE OR DEATH.'

On SUNDAY NEXT, Oct. 17th, 1897,

TWO PUBLIC MEETINGS

WILL BE HELD IN THE

Alexandra Hall, Tonbridge Rd., Maidstone,

(By kind permission of the Christian Friend), when

PROFESSOR HOBBS

(Promoter of Electric Communication between Light Ships, Light Houses, and the Shore to Save Life. Also the Mansion House Meeting in London in 1881),

Will address the Audience upon the Sad Fever Calamity to 1670 persons and Awful Deaths of 91, and will prove that the progress of Fever can be arrested within a very short time, the Patient smiling, sleeping, and soon eating. Letters from the Princess of Wales and Lord Rosebery; also Portraits and Letters of Lady Rosebery, and a patient cured at 84 years of age, who died at 92; the gardener of the late Archbishop of Canterbury (his Daughter cured of Consumption and Dropsy); a Patient who was covered with Scarlet Fever in the morning, and running in the bedroom in the evening, the next morning down to breakfast, etc., etc.; "also a Patient cured of Cancer," and one treated for nine Cancers.

A letter will be read by the Chairman from the late John Smedly, who had nearly 50,000 patients treated at his Home, and not one "Fatal Case" of Fever during his life, and not one case transferred to any Ignorant Doctor, Brewer, Publican, Wine or Spirit Merchant, or Licensed Grocer to be cured by cursed alcohol," and who believed with the Professor that the late beloved Prince Consort could have been relieved within an hour.

The Professor will give the particulars of a case of Fever stated to be of seven weeks' standing, who was pronounced beyond hope by the M.D. Two others were requested to see her insensible, grating her teeth, and moaning. Within 15 minutes the brain was relieved of Fever, and the patient soon asleep.

The Correspondence will be produced between the Asylums' Board, London, and Mr. Hobbs in favour of the use of six Beds in the Hospital, London, being allowed him for him to prove to 50 M.D.'s that he can relieve Fever Cases in 15 minutes if taken early. Fifty seats will be reserved for the Doctors and Nurses, who are earnestly and affectionately invited to attend, that they may learn how to prevent Pains, Suffering, and Death.

The Chair to be taken at 3 o'clock prompt, and 8.15 o'clock, by

TWO PHILANTHROPISTS OF MAIDSTONE.

Hundreds of Testimonials, Letters, &c., will be produced, received from supposed dying Patients, who are by now well, *after being* treated *Free* of charge.

A Collection will be made after each Meeting to defray Expenses, and provide a Free National Home (advocated to be built by an eminent London Physician, after proving the great success attending Mr. H.'s treatment of Mild Hydrophy and Medical Botany for 40 years) for the suffering.

The Clergymen and Ministers of the Town will oblige by announcing the Meetings from the various Pulpits on the Morning of the 17th of October, 1897.

The ignorance, the lying, and the nauseating infusion of spurious religion (who is "the Christian friend"?) make this bill a specially bad specimen of its class when we consider the circumstances under which it was issued. We should much like to know if any of the clergymen of the town were weak enough to give notice of the meetings from the pulpit, and if so whether the circumstance has come under the notice of His Grace of Canterbury. If so they will have a bad quarter of an hour, for if ever there was a man who has a hatred of humbug it is the present holder of the See of Canterbury. In that admirable little work "Loimographia" occurs the following sentence: "If God had not made venomous and hurtful creatures as well as others man would have wanted objects whereon to exercise his reason and prudence." Herein we have an explanation of the existence of persons like "Professor" Hobbs.

Mr. Arthur Field is thanked for his communication.

THE SOLUBILITY OF THE HUMAN BODY.

THE police authorities in Chicago have recently undertaken a series of experiments with a view to determining the innocence or guilt of a wealthy sausage maker, named Adolphus Luetgert, who is accused of having killed his wife and made away with her body by dissolution in a vessel containing a corrosive liquid. One of the experiments, which is said to have been perfectly successful, was performed in the following manner. A corpse having been procured it was stripped entirely naked and placed in a vat filled with a strong solution of caustic potash. After two hours the cover was removed, when it was found that, with the exception of a few fragments of bone and a small quantity of viscid matter having the consistency and appearance of molasses, the body had completely disappeared. In consequence of this conclusive demonstration it is held as established that Luetgert could have got rid of his wife's remains in a similar way, although before the experiment was tried several experts had declared that the thing was impossible. It seems that the only link that was wanting in the chain of evidence against the sausage maker has now been supplied, and according to the district attorney there is every probability of his conviction for murder.

Enquirer.—The circulars are most objectionable, but we doubt if the General Medical Council would consider their dissemination to constitute "infamous conduct in a professional respect."

"A FURTHER IMPROVEMENT IN DISINFECTION BY STEAM."

To the Editors of THE LANCET.

SIRS,—We observe in THE LANCET of the 23rd inst., p. 1058, notes on "A Further Improvement in Disinfection by Steam." The alleged improvement appears to consist in creating a vacuum in the disinfecting chamber by means of a steam jet, and we beg to point out that this is the apparatus known in this country as Alliott and Paton's Patent. We enclose our circular, No. 228, generally illustrating and describing this machine, which has been in use in this country for some years past and is thoroughly well known; it has, in fact, been illustrated and advertised in your columns. We also enclose circular 250 "Instructions for Working," which is, you will see, so far as it goes, identical with that described by you, but the Alliott and Paton's patent machine is in many respects more complete and perfect than the American apparatus you describe. We also enclose circular 256, being a list of places where this Alliott and Paton's patent disinfector has been adopted, from which you will see that it is well known and widely used not only throughout the United Kingdom and Ireland, but in the colonies and foreign countries; and as there are several of these machines at work in Canada it is not unlikely that the American machine you speak of may have been simply copied from one of these. We shall feel obliged if you will, in your next issue, be good enough to correct the statement that the American apparatus described by you is "a further improvement in disinfection by steam," being already widely known and largely used in the Alliott and Paton's patent machines of our manufacture. We are, Sirs, yours truly,

p.pro. MANLOVE ALLIOTT AND CO., Limited.

Nottingham, Oct. 25th, 1897. THOS. CANTRELL, Secretary.

A PROSECUTION UNDER THE NOTIFICATION OF DISEASES ACT.

DR. THOMAS BUCHANAN DUNN was summoned on Wednesday by the sanitary authority of St. Matthew, Bethnal-green, under the Public Health Act, for not having notified to the medical officer of the parish two cases of scarlet fever under his care. No appearance was made for the defence, and a penalty of 20*s.* in each case, with 14*s.* costs was imposed.

Veritas.—The last Calendar is dated July 29th, 1897, and has been issued some weeks. The price is 1*s.*, and the publishers are Messrs. Taylor and Francis, Red Lion-court, Fleet-street, E.C.

VILLAGE NURSES.

A RURAL Nurses' Association for Bedfordshire was recently started at a meeting presided over by the Duchess of Bedford, and in reference to this undertaking Mr. Edwin Ransom, J.P., of Bedford, has written a judicious letter to the *Bedfordshire Standard* of Oct. 8th on the subject of the relations existing between medical practitioners and village nurses. He says: "A village nurse is apt to be asked and even expected to do things which common-sense and a moment's reflection should leave to a doctor. Accident and sudden illness have a claim for 'first aid' on a nurse or anyone else who can render it—until the legally responsible practitioner arrives. At the same time it is too common in some places, and not only among the poorest people, for the nurse to be called in the first instance and thus for her to be sending for the doctor when the doctor ought to be sending for the nurse.'

THE SALARY OF A MEDICAL OFFICER OF HEALTH.

The *Local Government Chronicle* writes:—

"The Local Government Board are not satisfied with the salary the Lowestoft Corporation are paying to their medical officer, Dr. O'Connor, and that gentleman is perfectly in agreement with the Board. The doctor states that his hours of attendance average between eight and nine a day. Out of the £100 a year he receives as medical officer he is this year expending £30 on bacteriological and chemical apparatus, and the £30 he receives as superintendent of the Infectious Diseases Hospital has not paid for the medicines he has supplied. Out of the £90 he gets as net salary he has to pay £63 in rent. The chairman of the corporation declined to make any recommendation on the subject, but the council decided to consider next month the advisableness of giving the doctor a gratuity."

We are not surprised to learn that both the department and the medical officer of health in question find the remuneration scanty.

G. S. P. will find the information which he requires in the last "Student's Number" of THE LANCET, which was published on Aug. 21st, 1897.

"SCARLET FEVER AND THE PRACTICE OF MIDWIFERY."

To the Editors of THE LANCET.

SIRS,—With reference to your note in THE LANCET of Oct. 23rd under the above heading will you allow me to state: I had not been engaged to attend Mrs. Munday in her confinement. Mr. Bilham not only "at first" but still thinks the case was not scarlet fever. Mr. Bilham had not seen me for two days previous to his attendance on Mrs. Munday, and all other confinements attended by him while acting for me did well. Directions as to isolation were given by the medical man who was attending me and were carried out to his satisfaction. No member of my household was infected. Mr. Bilham before leaving the surgery in the morning, and when attending a confinement, disinfected his hands by rinsing them in bichloride solution. It is most imperative when attending midwifery cases to avoid unnecessary contact with persons suffering from contagious complaints and to use efficient means of disinfection, but is it not impracticable for a medical man in general practice to cease attendance on or avoid contact with contagious cases? I am, Sirs, yours faithfully,

Oct. 27th, 1897. E. T. WHITEHEAD.

*** We pointed out in our note that it is not possible for the general practitioner to avoid contact with contagious diseases because he has midwifery cases on his list. He must trust to disinfection and scrupulous care, and that these are sufficient to obviate public risk is proved to the hilt by the rarity of the spread of disease *vid* the medical man. After reading Mr. Whitehead's letter most medical men will agree with us that it is unlikely that Mr. Bilham conveyed the infection to the patient.—ED. L.

"TOE POST" SHOES.

To the Editors of THE LANCET.

SIRS,—Would any of your correspondents inform me of the maker of "Toe Post" shoes for the cure of bunions?

I am, Sirs, yours faithfully,

Oct 12th, 1897. O. TRAFFORD OWEN, M.B. Edin.

*** The makers of "Toe Post" shoes are Messrs. Holden Bros. 223½, Regent-street, W.—ED. L.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received: *Midland Counties Express, Lincoln Gazette, Luton Reporter, Brighton Herald, Bournmouth Observer, Newark Advertiser, Grimsby Chronicle, Hereford Times, Southern Echo, Lowestoft Standard, Leicester Post, Times of India, Pioneer Mail, Batley Reporter, Burton Chronicle, Devon County Standard, Rugby Advertiser, Liverpool Daily Post, Kent Messenger, Builder, Architect, Staffordshire Chronicle, Bedford Times, Wilts Standard, Le Figaro, Birmingham Post, Dundee Advertiser, Yorkshire Post, Glasgow Herald, Manchester Guardian, Western Morning News, Newcastle Chronicle, Leeds Mercury, Scotsman, Mirfield Reporter, Yarmouth Independent, Catholic Times, Cromer Post, Northampton Herald, East Anglian Daily Times, Amathid News, Bristol Mercury, Dunstable Advertiser, North Wilts Herald, Cheltenham Mercury, Derbyshire Advertiser, Newton Observer, Hampshire Chronicle, Brighton Gazette, Kidderminster Shuttle, Evesham Journal, Carlisle Journal, Sanitary Record, Mining Journal, Reading Mercury, Hertfordshire Mercury, Local Government Chronicle, Kerry Sentinel, City Press, Middlesex Hospital Journal, Weekly Free Press and Aberdeen Herald, Coventry Mercury, Australasian Medical Gazette, Essex Telegraph, Surrey Advertiser, Bolton Daily Chronicle, Local Government Journal, Kerry Weekly Reporter, Eastern Daily Press, Daily Gleaner (Kingston, Jamaica), West Middlesex Herald, Brighouse News, &c., &c.*

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